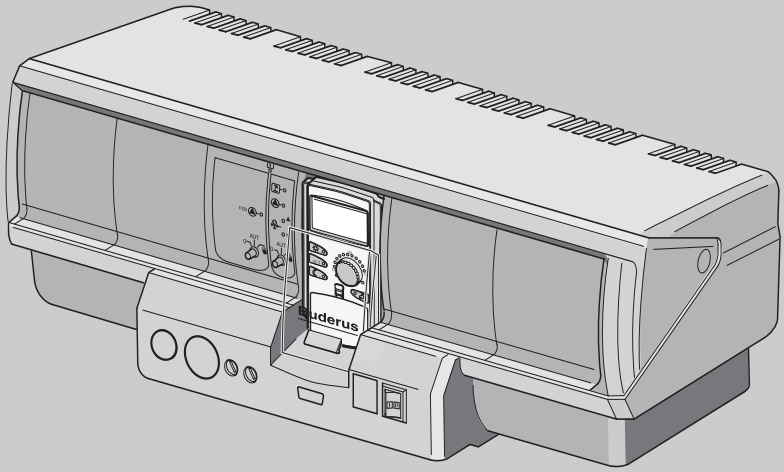
Operating Instructions

Control panel



Logamatic 4323

For the user

Please read carefully before use

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Buderus

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1 Introduction

With your purchase of this Logamatic control panel you have acquired a product that promises you easy control over your heating system. It offers you optimum heating convenience and minimum energy consumption.

The control panel enables you to operate your heating system so that you can combine your economical and ecological aspirations. Of course your personal comfort is always the priority.

The control panel, which is controlled by the MEC2 remote control, is set up at the factory for immediate use. Naturally, you or your heating contractor can modify these default settings and adapt them to your individual requirements.

The MEC2 remote control is the central control.

Some functions that you may need are located behind a flap. The buttons behind this flap enable you to make various adjustments.

The control concept is:
"Push and turn"

"The control speaks your language."

Your heating system offers a wealth of other useful functions. Some examples of these are:

– Automatic warm weather shut down (WWSD)

– Party/pause function

– Vacation function

– DHW heating at the touch of a button

2 What you should know about your heating system

Why should you become more familiar with your heating system?

Modern heating systems offer you many functions for saving energy without sacrificing comfort. Getting to know this heating technology may seem daunting at first, but after a short while you will recognize the advantages you can gain from a heating system that is set up to meet your personal requirements. The more you are aware of the options offered by your heating system, the more advantage you will be able to take of them.

How does your heating system work?

Your heating system comprises the boiler with burner, the heating control panel, the piping and the radiators or radiation of some type. A DHW storage tank or an instantaneous water heater heats the water required for shower, bath or washing your hands. Depending on the way your heating system has been installed, it can operate either purely as a central heating system or together with a DHW storage tank. It is important that the various components match each other. The burner combusts fuel (e.g. gas or oil) and heats the water inside the boiler. Using pumps, this hot water is transported through the piping to the consumers (radiators, radiant heating system, etc).

Fig. 1 shows the heating circuit of a pumped central heating system: The burner [2] heats the water inside the boiler [1]. This boiler water is transported by the pump [3] through the system supply pipe [4] to the radiators [6]. The boiler water flows through the radiators, and in doing so, gives off some of its heat. The boiler water flows back to the boiler via the return line [7], where the cycle starts again.

The room temperature can be adjusted to your personal requirements using the radiator valves [5]. All radiators are supplied with the same supply temperature. The heat transferred to the room depends on the radiator surface and the boiler water throughput. Therefore, the heat transfer can be manipulated via the radiator valves.

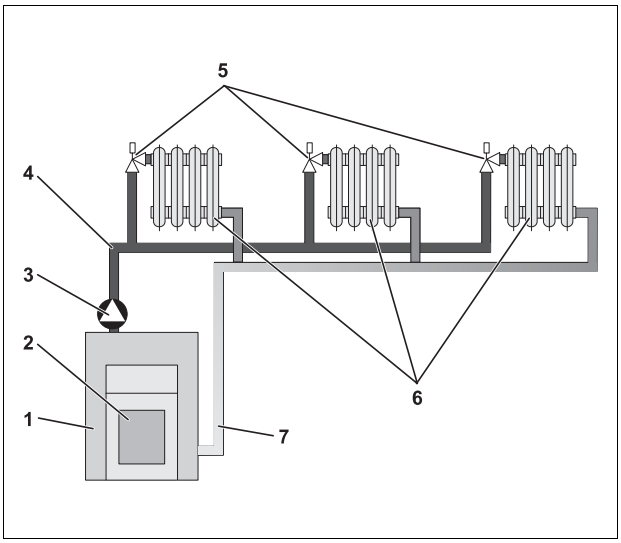


Fig. 1 Pumped central heating design

1 Boiler
2 Burner
3 Pump
4 System supply pipe
5 Radiator valves
6 Radiators
7 System return pipe

What determines the heat demand of a room?

The heat demand of a room largely depends on the following factors:

– Outdoor temperature
– Desired room temperature
– Type of construction/insulation of the building
– Wind factor
– Solar gain
– Internal heat sources (open fireplace, occupants, lamps, etc.)
– Closed or open windows

You should take these factors into consideration to achieve a comfortable room temperature.

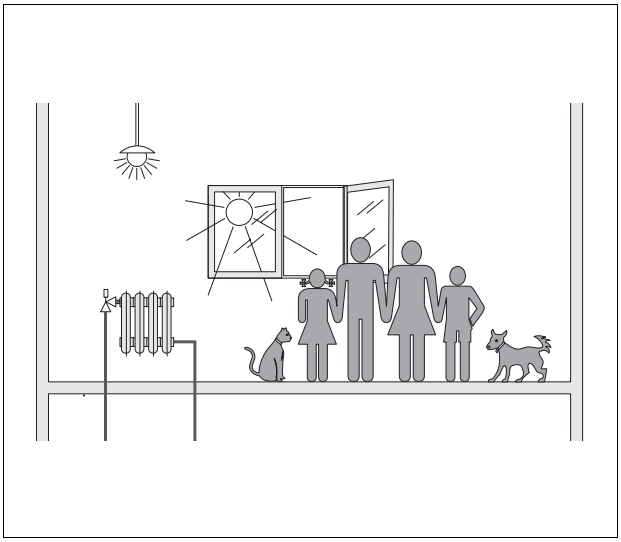


Fig. 2 Influences on the room climate

Why do you need a heating control panel?

The control panel ensures convenient heat and economical consumption of fuel and electrical energy. It switches the heat generator (boiler and burner) and pumps ON if warm rooms or hot water are desired. In so doing, it uses the components of your heating system at the correct time.

Furthermore, your heating system records different variables that influence the room temperature and compensates for these.

What does the heating control panel calculate?

Advanced control panels calculate the boiler temperature (the so-called supply temperature) subject to the outdoor temperature. The relationship between the outdoor temperature and the supply temperature is described as the heating curve. The lower the outdoor temperature, the higher the supply temperature must be.

The control panel can operate in three control modes:

– Weather-compensated control (outdoor reset)

– Room temperature control (indoor reset)

– Weather-compensated control with room temperature compensation (outdoor reset with room influence)

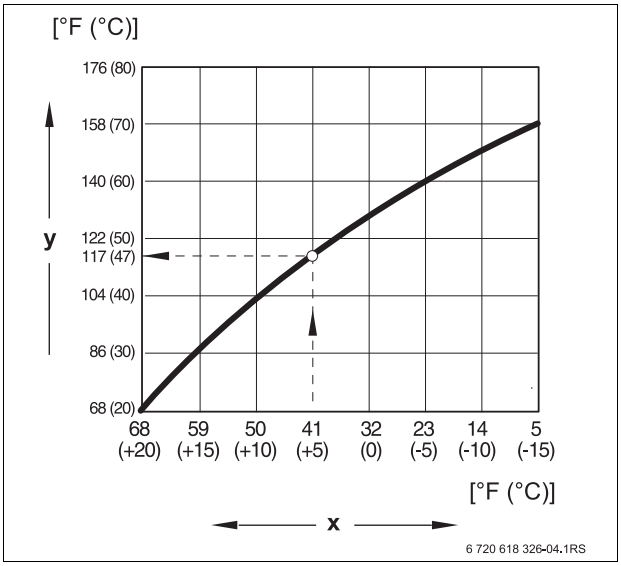


Fig. 3 Heating zone curve (example)

x Outdoor temperature

y Supply temperature

Weather-compensated control (outdoor reset)

With weather-compensated control, only the outdoor temperature captured by the outdoor temperature sensor is decisive for the supply temperature. Room temperature fluctuations through radiant energy from the sun, occupants, open fireplaces or similar external heat sources are not considered.

If you use this type of control, adjust the radiator valves (if equipped) so that the desired room temperature is achieved in the different rooms.

Room temperature-dependent control (indoor reset)

Another possible heating control method is room temperature-dependent control. The control panel calculates the supply temperature based on the set and actual room temperatures.

To be able to use the room temperature control, you need a room that is representative of your whole home. All factors influencing the temperature in this "reference room" – where the user interface is located – will also apply to all other rooms. Not every home has a room that meets these requirements. Pure room temperature-dependent control has certain limitations in such cases.

Should you, for example, open a window in the room where the room temperature is measured, the control panel will "think" that you have opened the windows in every room in your house and will begin to heat vigorously.

Or the reverse might apply: You measure the temperature in a south-facing room with different heat sources (solar or other heat sources, e.g. an open fireplace). Now the control panel "thinks" that it is as hot in every room as in the reference room; consequently the boiler output will be severely reduced so that, for example, the north-facing rooms will become too cold.

With this kind of control you always need to keep all radiator valves (if equipped) in the reference room fully open.

Weather-compensated control with room temperature compensation (outdoor reset with room influence)

Weather-compensated control with room temperature compensation combines the advantages of the other two control modes. The desired supply temperature, which is subject mainly to the outdoor temperature, can be adjusted by the room temperature to only a limited degree. This achieves improved maintenance of the room temperature within the room containing the user interface without completely ignoring the other rooms.

With this kind of control you will also need to keep all radiator valves (if equipped) in the reference room fully open.

Why do the radiator valves have to stay fully open?

If, for example, you want to reduce the room temperature in the reference room, and you therefore close the radiator valve further, the supply rate through the radiator is reduced and, therefore, less heat is transferred to the room. This reduces the room temperature. The heating control panel will try to counteract the sinking room temperature by raising the supply temperature. However, raising the supply temperature will not raise the room temperature since the radiator valve continues to limit the room temperature.

A supply temperature that is too high results in unnecessary heat losses in boiler and piping. At the same time, the temperature in all rooms without radiator valves increases due to the higher boiler water temperature.

Why do I need a timer?

Advanced heating systems are equipped with a timer to save energy. With a timer, you can set up an automatic changeover between two different room temperatures, subject to time. This enables you to set a reduced room temperature at night, or at other times when a reduced temperature is sufficient, while operating your heating system with the standard room temperature during the day.

You have four options for reducing the room temperature via the control panel. Your heating contractor will select one according to your requirements and will set it up for you:

– Total shutdown (no room temperature control)

– Reduced room temperature (a reduced room temperature will be maintained)

– Change between total shutdown and reduced heating subject to room temperature

– Change between total shutdown and reduced heating subject to outdoor temperature

With **total shutdown** of the heating system, no pumps or other system components are operated. Heating only starts up again if the heating system is at risk of freezing.

Heating with reduced room temperature (night mode) only differs from standard heating mode (day mode) through a lower supply temperature.

When **changing from total shutdown to reduced heating**, the boiler will remain shut down as long as the **room temperature** exceeds a set level. This function is only available if a room temperature sensor is installed.

When **changing from total shutdown to reduced heating**, the boiler will remain shut down as long as the **outdoor temperature** exceeds a preset level.

What are heating zones?

A heating zone describes the circuit made by the boiler water from the boiler via the radiators and back again (→ Fig. 1, page 6). A simple heating zone comprises a heat source, a supply pipe, a radiator and a return pipe. A pump installed in the piping circulates the boiler water.

Several heating zones may be connected to one boiler, for example, one heating zone for supplying radiators and another zone for supplying a radiant floor heating system. In this case, the radiators are supplied at a higher supply temperature than the radiant floor heating system.

The supply of different supply temperatures to different heating zones can be achieved by e.g. installing a three-way mixing valve between the heat source and the radiant floor heating system.

Using an additional temperature sensor in the supply of the heating zone to be supplied, sufficient cold return water is mixed via a three-way mixing valve into the hot supply water to achieve the desired lower temperature. It is important to note that heating zones with three-way mixing valves require an additional pump. This pump enables the second heating zone to be operated independently of the first heating zone.

3 Tips on energy-efficient heating

Here are a few tips on how to heat economically without sacrificing convenience:

- Only heat if you need warmth. Use the preset heating programs (standard programs) in the control panel or those that have been tailored to your individual requirements.
- Air rooms properly during the heating season: Open windows fully three to four times a day for approx. 5 minutes. Having the window slightly open all the time does not provide fresh air changes and wastes valuable energy.
- Close the radiator valves while ventilating.
- Windows and doors are places where a lot of heat is lost. Therefore, check whether the doors and windows are sealed correctly. Close shutters (if installed) at night.
- Never position large objects such as a sofa or a desk immediately in front of the radiators (maintain a clearance of at least 20" (0.50 m). Otherwise, the heated air cannot circulate and heat the room adequately.
- In rooms you occupy during the day, you can, for example, set a room temperature of 70 °F (21 °C), while 63 °F (17 °C) may be sufficient at night. To achieve this, use the standard heating mode (day mode) and the setback mode (night mode, → Chapter 6).
- Never overheat rooms; overheated rooms are unhealthy, plus they waste money and energy. If you reduce the day room temperature, for example from 70 °F (21 °C) to 68 °F (20 °C), you can save approx. six percent of your heating bill.
- Also heat in an energy-conscious manner in spring and autumn, and use the automatic warm weather shut down (→ Chapter 7).
- A pleasant room climate depends not only on the room temperature, but also on the relative humidity. The drier a room, the cooler it feels. You can optimize the relative humidity with house plants.
- You can also save money when heating DHW: Only operate the recirculation pump via a timer. Research has shown that it is generally sufficient to run the recirculation pump for only three minutes every half hour.
- Arrange with your local heating contractor to have your heating system serviced annually.

4 Safety

4.1 About this manual

These operating instructions contain important information regarding the safe and correct operation of the Logamatic 4323 control panel.

4.2 Intended use

The Logamatic 4323 control panel is designed to control and monitor heating systems with different types of boilers in apartment buildings, residential developments and buildings with medium to large heat demand.

4.3 Standards, regulations and directives

USER NOTE

Observe all regulations and standards applicable to installation and operation of the system in your country.

USER NOTE

All electrical components must be approved in the USA and Canada!

This product has been tested and certified and meets applicable standards for the US and Canadian markets.

4.4 Key to symbols

Two levels of danger are identified and signified by the following terms:

WARNING!

RISK OF LIFE

Identifies possible dangers emanating from a product, which might cause serious injury or death if appropriate care is not taken.

CAUTION!

RISK OF INJURY/ SYSTEM DAMAGE

Indicates a potentially dangerous situation that could cause minor or moderately serious injuries or damage to property.

USER NOTE

Tip for optimum use of equipment and adjustment as well as useful information.

4.5 Please observe these notes

- Only operate the control panel as intended and if it is in perfect working order.
- The technician must give detailed instructions on the operation of the system.
- Please read these operating instructions carefully.
- Only the operating characteristics listed in this manual may be input and modified. Other entries alter the control programs of the heating system and can lead to incorrect system functions.
- Maintenance, repairs and fault diagnosis must be carried out by trained technicians only.

WARNING!

RISK OF LIFE

due to electric shock!

- Never open the control panel.
- In an emergency, switch off the control panel (e.g. with the heating system emergency shut-off switch) or isolate the heating system from the power supply by disengaging the heating system circuit breaker.
- Arrange for your heating contractor to rectify any heating system faults immediately.

CAUTION!

RISK OF INJURY/ SYSTEM DAMAGE

due to operator error!

Operator errors can cause injury and damage to property.

- Make sure that children never operate the appliance unsupervised or play with it.
- Make sure that only personnel trained to operate the appliance correctly have access to it.

WARNING!

RISK OF SCALDING

from hot water.

During thermal disinfection the entire DHW system is factory-set to be heated to 158 °F (70 °C) (start time: Tuesday night at 1:00 am (01:00 h)). Hot water temperatures above 122 °F (50 °C) can cause scalding almost immediately.

- The default start time can be changed to another time by a heating contractor if desired (shift work).
- If thermal disinfection is activated, ensure that a thermostatic tempering valve is installed as protection against scalding.

CAUTION!

SYSTEM DAMAGE

from frost.
The heating system can freeze up in cold weather if it is switched off.

- Protect your heating system against frost damage by draining it and the DHW piping at the lowest possible point.

4.6 Cleaning the control panel

- Clean the control panel with a damp cloth only.

4.7 Disposal

- Dispose of the control panel packaging in an environmentally-responsible manner.
- The lithium battery in the CM431 module must be replaced by a heating contractor only.

5 Controls and MEC2 remote control

5.1 Controls on the control panel

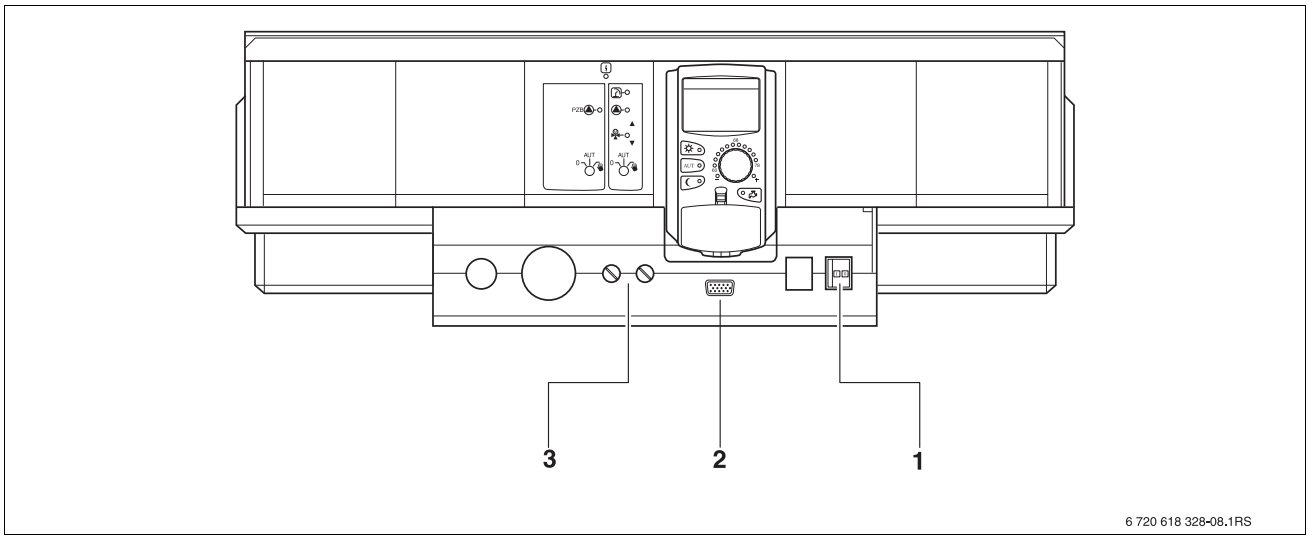


Fig. 4 Logamatic 4323 control panel (standard delivery)

1 On/Off switch

2 Connection for external service equipment

3 L1, L2 fuses

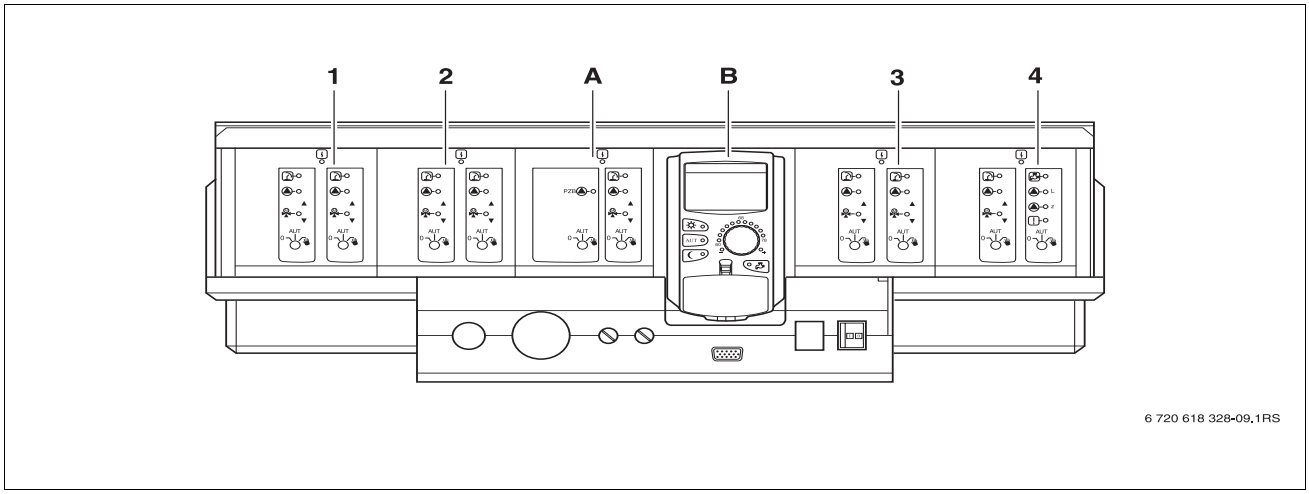


Fig. 5 Installed modules (possible full complement)

1 Slot 1: e.g. FM442 – heating zone 1, heating zone 2

2 Slot 2: e.g. FM442 – heating zone 3, heating zone 4

A Slot A: ZM433 – supply for external heat sources, heating zone 0

B Slot B: MEC2 (CM431) – MEC2 remote control

3 Slot 3: e.g. FM442 – heating zone 5, heating zone 6

4 Slot 4: e.g. FM441 – heating zone 7 DHW/DHW recirculation pump or heating zone 7, heating zone 8 (with module FM442 in slot 4)

5.2 MEC2 remote control

The MEC2 remote control is the central element used to operate the Logamatic 4323 control panel.

Display

The display (→ Fig. 6, [4]) indicates functions and operating values, e.g. the actual room temperature.

Dial

The dial (→ Fig. 6, [5]) is used to set new values and scroll through the menus.

Buttons

You control the functions via the buttons, and the relevant indications appear on the display. To change a value push and hold the button, then turn the dial.

When the button is released, the new value is implemented and saved.

You can reach certain functions, such as day room temperature, night room temperature, and possibly the DHW temperature or the automatic heating mode, directly via the corresponding buttons (→ Fig. 6, [1] to [3] and [6]).

Behind a flap (→ Fig. 6, [7]) further buttons are available for further settings, e.g. for entering week days or setting the time.

The unit automatically returns to the standard display if no entry is detected for some time.

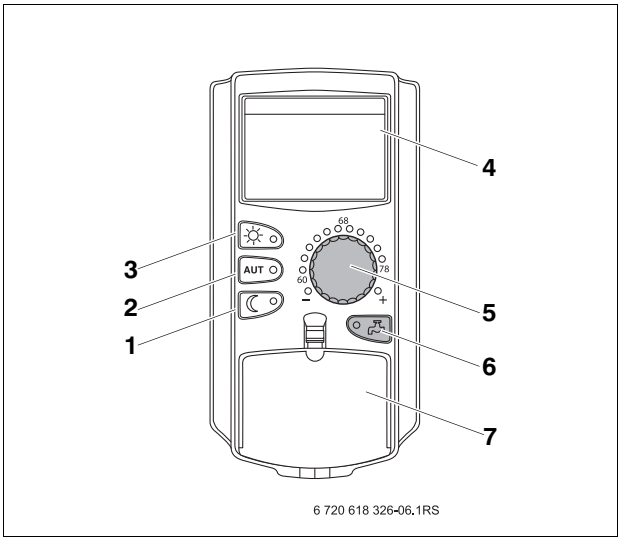


Fig. 6 MEC2 remote control

1 Continuously reduced heating mode
2 Automatic heating mode by program
3 Continuous heating mode
4 Display
5 Dial
6 Input DHW temperature/heating
7 Flap for the keypad of control level 2

The central MEC2 remote control

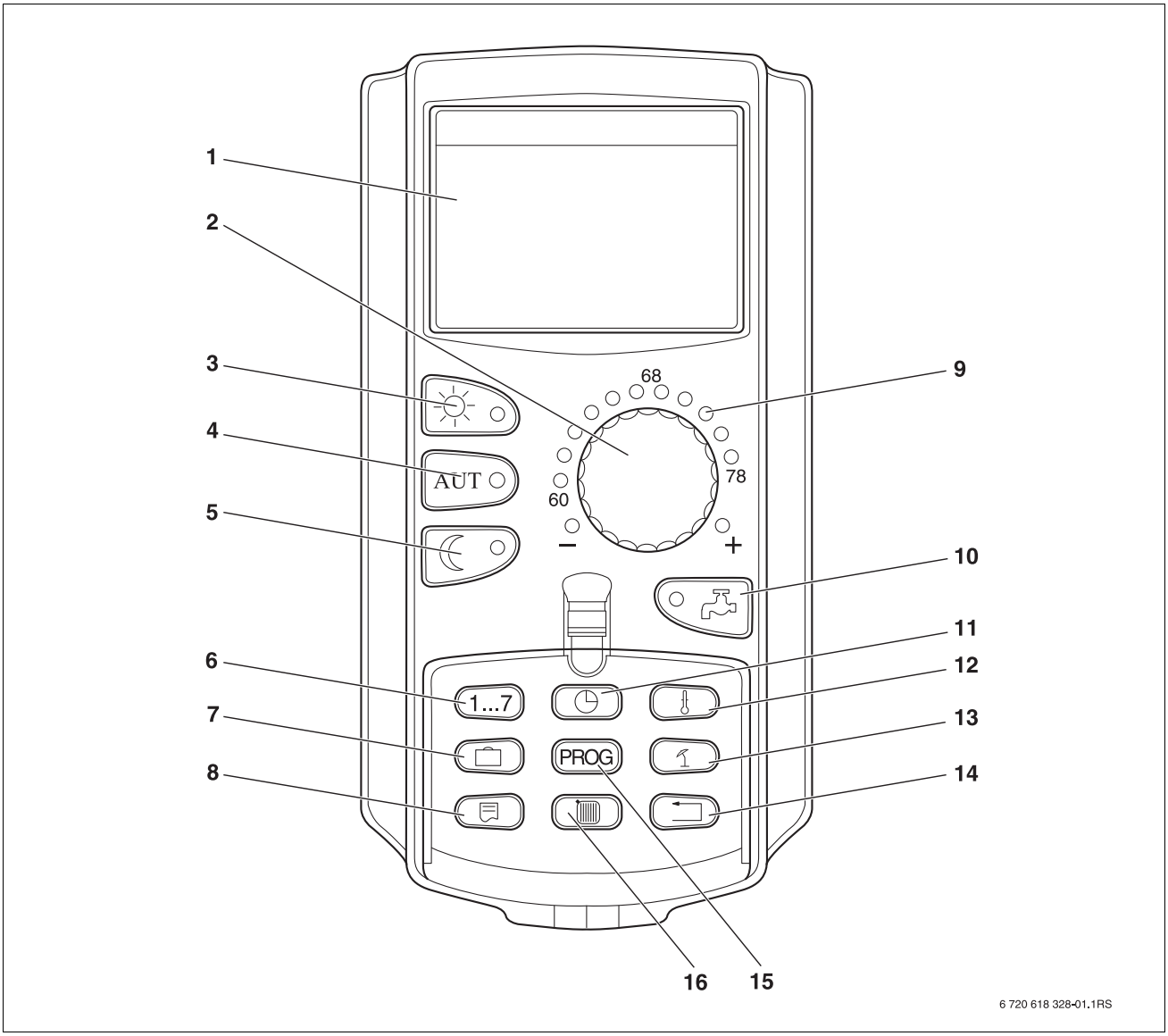


Fig. 7 MEC2 remote control

1 Display
2 Dial
3 Continuous heating mode
4 Automatic heating mode by program
5 Continuously reduced heating mode
6 Set day
7 Set vacation days
8 Select standard display
9 Display for set nominal room temperature
10 Input DHW temperature/heating
11 Set the time
12 Change temperature values
13 Set warm weather shut down (WWSD) temperature
14 Back to standard display
15 Select a timer program
16 Select heating zones/DHW zone

5.3 Switching on the control panel

- Check that the control panel ON/OFF switch (→ Fig. 8, [1]) and the manual switches on the installed modules (→ Fig. 8, [2]) are set to "I" and "AUT".
- Switch the control panel ON by setting the ON/OFF switch to "I" (→ Fig. 8, [1]).

After approx. 2 minutes all modules installed in the control panel are recognized and the standard display is shown.

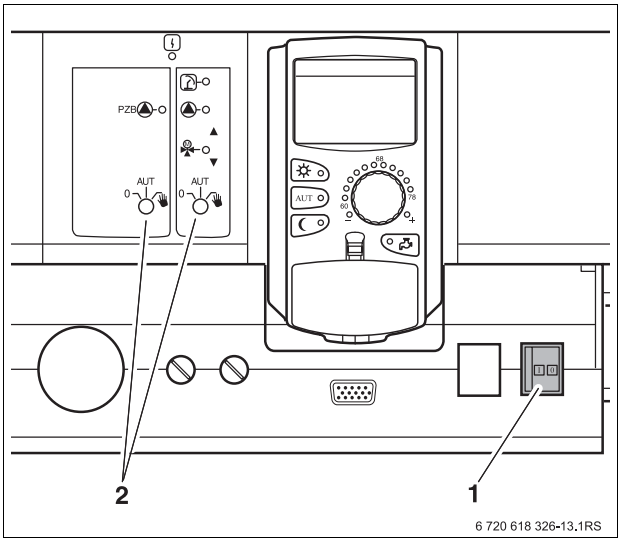


Fig. 8 On/Off switch

1 On/Off switch

2 Manual switches on the module

5.4 Switching off the control panel

- Switch the control panel OFF by setting the ON/OFF switch to "0" (→ Fig. 8, [1]).
- In an emergency: Isolate the heating system from the mains supply with the emergency shut-off switch outside the boiler room or by disengaging the heating system circuit breaker.

6 Basic functions

In this chapter you will find information about the standard functions of the MEC2 remote control and their use. The standard functions are:

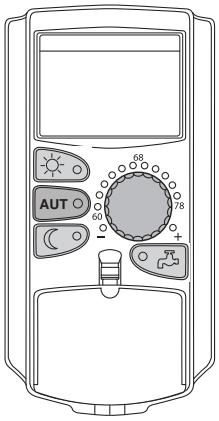
– Select the operating mode

– Set the room temperature

– Set the DHW temperature

– Load DHW once

6.1 Simple operation

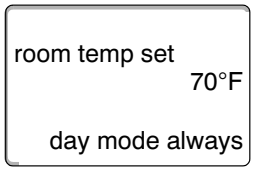


The standard functions are controlled by pressing one of the buttons on the "Standard functions" keypad or by turning the dial.

Example: Adjusting the room temperature for day mode

Press "Day mode" to select the standard heating mode (day mode). The LED of the "Day mode" button lights up; day mode is enabled.

Set the desired room temperature by turning the dial.
(Condition: For this, the user interface flap must be closed.)



The display shows the set value.

USER NOTE

If your heating system is equipped with several heating zones, you must first select the correct heating zone (→ Chapter 7.6). Only then can you select the operating mode and room temperature.

USER NOTE

The following MEC2 displays covers the available screens:

– of module ZM433 (standard equipment),

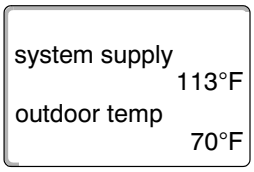
– of the most frequently-used modules FM441 and FM442 (accessories).

Depending on the way your heating contractor has configured your system, one or more MEC2 screens may not appear, although the above modules are installed in your control panel.

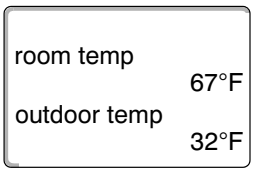
Detailed descriptions of MEC2 screens for other modules are included in the corresponding module documentation.

6.2 Permanent display

There are two different permanent displays. Either one of the factory-set permanent displays is shown, depending on whether the MEC2 is installed in the control panel or is installed as a wall-mounted unit.

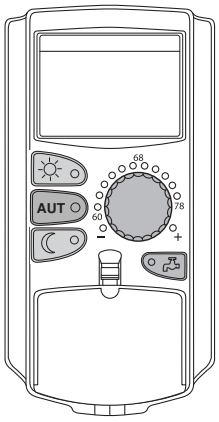


Factory-set permanent display if the MEC2 is installed in the control panel.



Factory-set permanent display if the MEC2 is installed as a wall-mounted unit.

6.3 Select operating mode



You can operate the MEC2 remote control in two ways:

– in automatic mode

– in manual mode

Automatic mode

Typically buildings, homes are heated less at night than during the day. With the MEC2 remote control, you don't need to adjust the radiator valves before bedtime or in the morning. The automatic changeover of the MEC2 remote control does this for you. It switches between day mode (standard mode) and night mode (setback mode).

The times when the heating system changes from day mode to night mode – and vice-versa – are factory-set via standard programs (→ Chapter 7.10). However, you or your heating contractor can modify these settings (→ Chapter 7.12).

Manual operation

For example, if you want to heat longer late in the evening or not quite as early in the morning, you can set the day and night mode manually (→ Chapter 6.3.2). You can also use manual mode to heat on cooler days when the system is operating in summer mode.

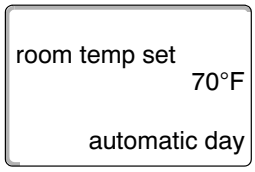
6.3.1 Selecting automatic mode

In automatic mode your heating system will operate with the timer program, i.e. central and DHW heating at preset times (→ "Why do I need a timer?", page 9).

Example: Enabling automatic mode

Press "AUT".

The LED of the AUT button is on; automatic mode is active.



In addition, either the "Day mode" or "Night mode" LED will light up. This is subject to the set times for day and night mode.

Automatic day and night mode

At fixed times, central heating is provided or the room temperature is set back.

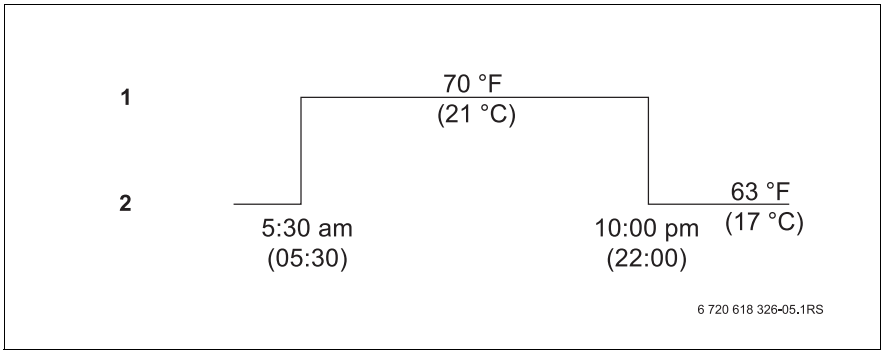


Fig. 9 Changeover from day and night mode at fixed times (example)

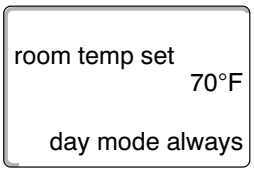
1 Day mode

2 Night mode

6.3.2 Selecting manual mode

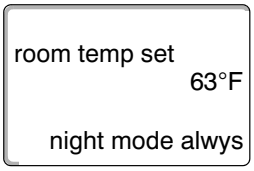
Press either "Day mode" or "Night mode" to change to manual mode.

Press "Day mode".



The LED of the day mode button lights up. Now your heating system is in constant day mode (standard mode).

Press "Night mode".

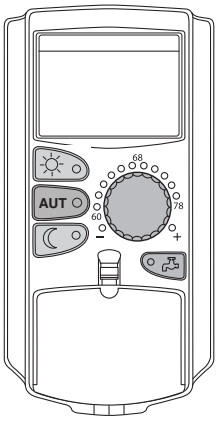


The LED of the night mode button lights up. Now your heating system is in constant night mode (setback heating mode), and operates at a lower room temperature.

USER NOTE

If you have selected manual mode, other automatic controls will also be switched off, e.g. warm weather shut down (WWSD) (→ Chapter 7.13).

6.4 Set the room temperature



With the flap closed you can adjust the room temperature with the dial. With the flap open, also press "Day mode" or "Night mode".

With the dial, you can select the room temperature in degree steps between 52 °F (11 °C) (day), or 36 °F (2 °C) (night), and 86 °F (30 °C). The set temperature is displayed via an LED next to the dial. For temperatures below 59 °F (15 °C) or above 77 °F (25 °C), the "–" or "+" LED illuminates.

The factory setting for the day room temperature is 70 °F (21 °C).
The factory setting for the night room temperature is 63 °F (17 °C).

Any adjustment applies to all heating zones allocated to the MEC2 remote control (→ Chapter 7.7).

USER NOTE

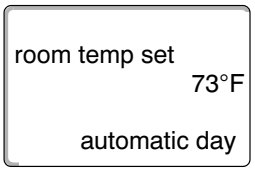
The set room temperature applies to the currently active heating mode, i.e. day or night mode. You will recognize if the currently-active heating mode is ON depending on whether or not the green LED is lit up.

6.4.1 For the current operating mode

You are currently in automatic "Day mode" and would like to change the room temperature.

(Condition: For this, the user interface flap must be closed.)

Turn the dial to the desired day room temperature (here: "73°F" (23 °C)).



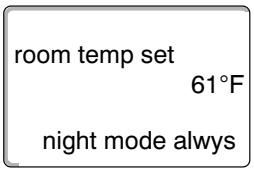
The day room temperature is now adjusted to 73 °F (23 °C). The selected permanent display will then appear again.

6.4.2 For the operating mode not currently enabled

You may also adjust the room temperature for an operating mode that is currently inactive.

For example, you are currently in automatic day mode and would like to change the set night temperature.

Hold down "Night mode" and select the desired night room temperature with the dial (here: "61°F" (16 °C)).



Release the "Night mode" button.

The selected night temperature is now set to 61 °F (16 °C). The selected permanent display will then appear again.

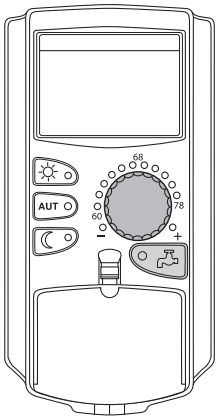
Press "AUT".

The "AUT" LED lights up; automatic mode is re-enabled.

USER NOTE

If you are currently in automatic night mode, and you wish to adjust the day mode, proceed as described above, but instead hold down "Day mode".

6.5 DHW heating



The user interface also offers you the option of heating DHW in an energy-conscious manner. For this purpose, DHW heating can be selected via a timer. You can select between the set values for DHW and "OFF" to stop DHW heating.

To save energy, DHW heating will be switched off outside the programmed times, i.e. DHW is not heated in night mode.

DHW heating is factory-set to 140 °F (60 °C) in automatic mode.

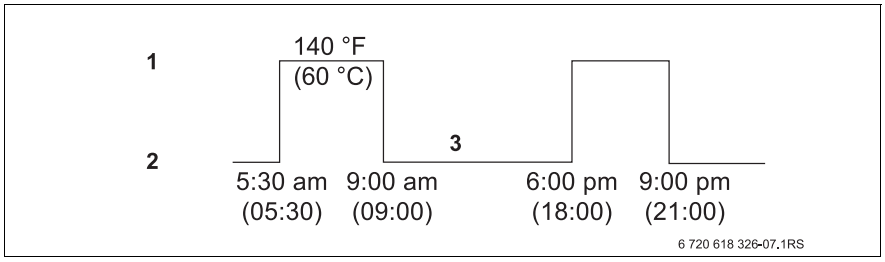


Fig. 10 Example: DHW heating

1 Day mode

2 Night mode

3 OFF

We recommend heating the DHW storage tank once in the morning, before central heating begins, and reheating once in the evening if necessary (→ Fig. 10).

USER NOTE

The DHW temperature has fallen below the set value if the green "DHW" LED lights up.

6.5.1 Setting the hot water temperature

WARNING!

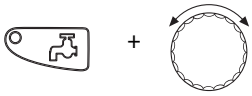
RISK OF SCALDING

from hot water.

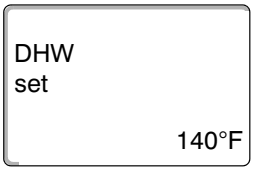
Hot water temperatures above 122 °F (50°C) can cause scalding almost immediately.

- Do not draw off DHW unmixed.
- Ensure that a thermostatic tempering valve is installed as protection against scalding.

You can change the DHW temperature:



Hold the "DHW" button down and select the desired DHW temperature with the dial.



Release the "DHW" button. The newly-selected DHW temperature is saved within approx. 2 seconds. The permanent display will then appear again.

USER NOTE

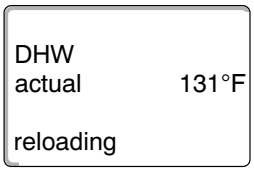
During thermal disinfection, DHW will be heated to at least 140 °F (60 °C) once or twice per week to kill off possible bacteria (e.g. legionella).

6.5.2 Single DHW charging

If the "DHW" LED lights up, only a limited amount of hot water remains in the storage tank. Should you require a larger amount of DHW, proceed as follows:

Press "DHW".

The "DHW" LED flashes, and a single DHW charge is started.



Depending on the size of the storage tank and the boiler output, DHW will be available after approx. 10 to 30 minutes. With instantaneous water heaters or combination boilers, DHW will be available almost immediately.

7 Extended functions

The extended functions are explained in this chapter. You need the extended functions to be able to change the factory settings of your heating system. You may use the following functions:

– Display the current operating values of your heating system

– Set the time

– Set date

– Adjust heating zones

– Select a heating program

– Set the room temperature for additional heating zones

The buttons for the extended functions are located behind the flap of the MEC2 remote control.

7.1 Buttons for extended functions

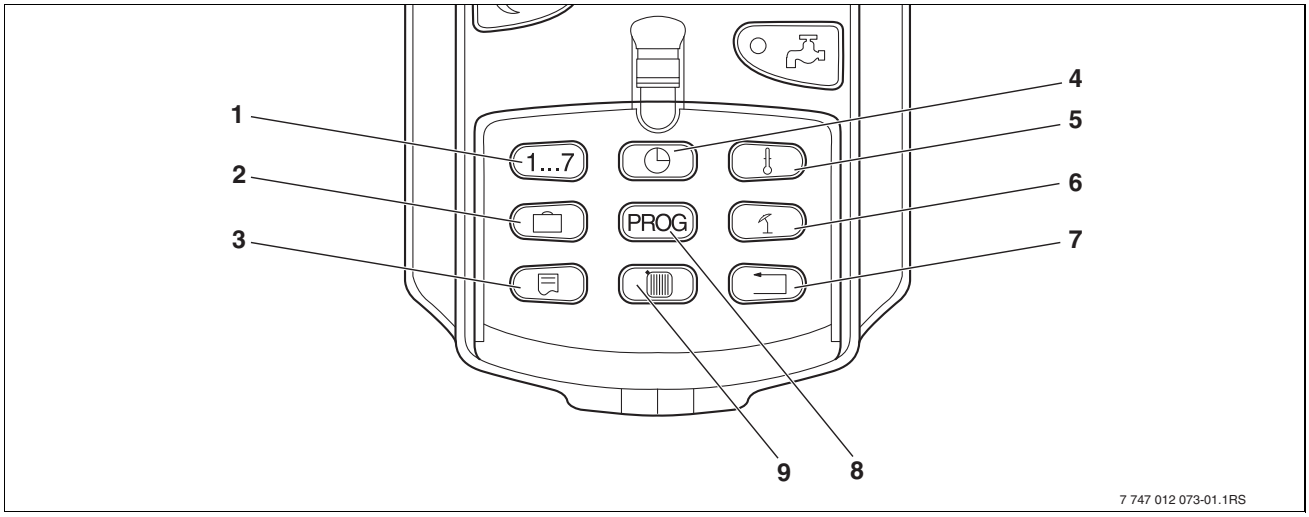


Fig. 11 Buttons for the extended functions

1 Set day

2 Set vacation days

3 Select standard display

4 Set the time

5 Change temperature values

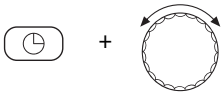
6 Set warm weather shut down (WWSD) temperature

7 Back to standard display

8 Select a timer program

9 Select heating zones/DHW zone

7.2 Controlling the extended functions



The extended functions provide access to an additional control level. At this level, proceed according to the "Push and turn" principle. The control procedure is always similar:

- Open flap.

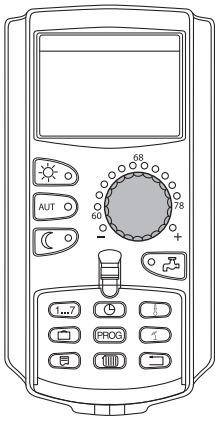
Hold the desired button down, e.g. the "Time" button, and simultaneously turn the dial.

By turning the dial, you modify the values that flash on the display.

Release the button. Modified values are saved.

"Back" button = Exit menu.

7.3 Displaying operating values

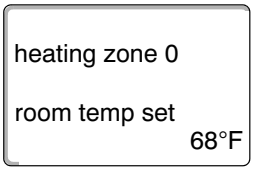


You can display and control the various operating values of the boiler, of the selected heating zone, and the system.

Only the operating values of the selected heating zone, e.g. heating zone 0, are displayed (→ Chapter 7.6).

- Open flap.

Turn the dial clockwise without pressing any other button.

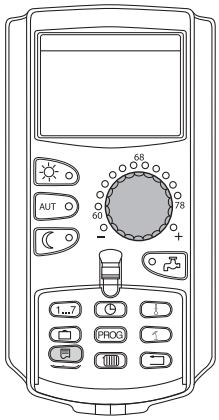


Depending on the modules, various of the following operating displays can be called up:

– Burner and run time
– Actual heating zone room temperature
– Set room temperature of heating zone
– Operating status of heating zone
– Measured supply temperature of heating zone
– Measured DHW temperature*
– Set DHW temperature*
– DHW operating mode*
– Operating status of recirculation pump and tank primary pump*

* *Only if a DHW module has been installed.*

7.4 Changing the permanent display

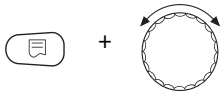


You can determine the permanent display of the user interface.

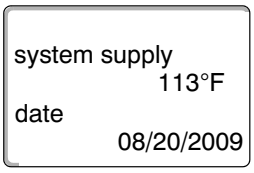
The following permanent displays are available:

– System supply (if MEC2 is installed as a wall-mounted unit)
– Outdoor temperature
– DHW*
– Time
– Date
– Room temperature (if installed in room)

* *Only if a DHW module has been installed.*



Hold the "Display" button down, and select the desired permanent display with the dial (here: "date").

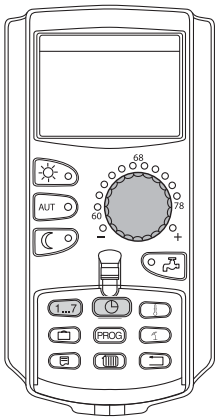


Release the "Display" button. The selected permanent display has now been saved.

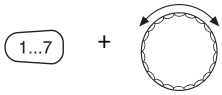
7.5 Setting the date and time

USER NOTE

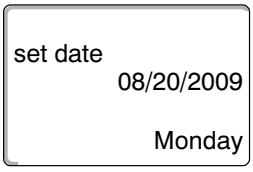
Date and time are preset at the factory. This function is backed up by battery power independent of the mains power supply.



Setting the date



Hold "Weekday" down, and select the desired date with the dial (here: "20").



The name of the day automatically changes (here "Monday") if you set the date using the dial (here "20").

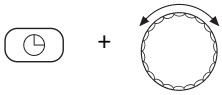
Release "Weekday" to save your input.

Press "Weekday" again to enter the month.

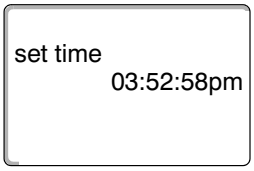
Press "Weekday" again to enter the year.

The item flashing can be modified with the dial.

Setting the time



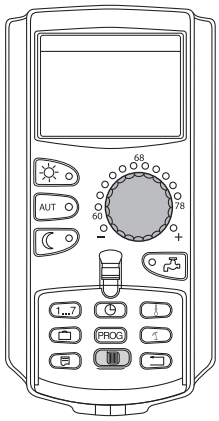
Hold down "Time" and select the desired time with the dial.



The time is set in one-minute steps.

Release "Time" to save your input.

7.6 Selecting a heating zone

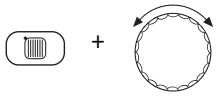


Your heating system may be equipped with several heating zones. If you want to change a setting, e.g. the heating program, first select the desired heating zone.

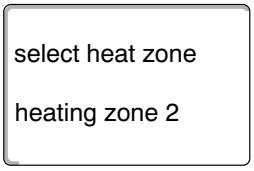
Depending on the equipment level of your heating system, the following heating zones can be selected:

– MEC2 heating zones (all heating zones assigned to the MEC2, → Chapter 7.8)
– Heating zone 0 – 8
– DHW
– Recirculation

- Open flap.



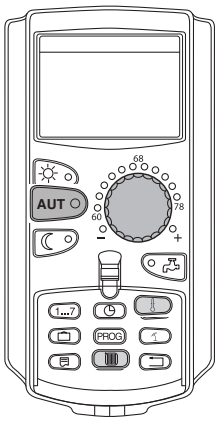
Hold down "Heating zone" and select the desired heating zone with the dial (here: "heating zone 2").



Release the "Heating zone" button. The displayed heating zone is now selected.

As soon as the heating zone has been selected, the display returns to the permanent display.

7.7 Adjusting the room temperature for another heating zone



Your heating system may be equipped with several heating zones. If you want to change the room temperature for a different heating zone than the one last selected, first select the desired heating zone.

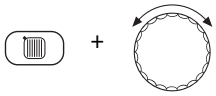
Depending on the equipment level of your heating system, the following heating zones can be selected:

– MEC2 heating zones (all heating zones assigned to the MEC2, → Chapter 7.8)

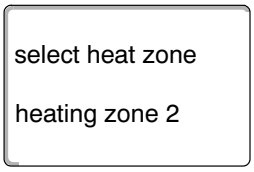
– Heating zone 0 – 8

If several heating zones are assigned to the MEC2, the temperature for these heating zones can only be adjusted for all. Otherwise a fault message "selection not supported MEC heatingzones select" will appear. In such cases select "MEC heatingzones".

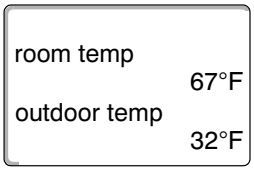
- Open flap.



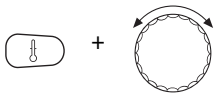
Hold down "Heating zone" and select the desired heating zone with the dial (here: "heating zone 2").



Release the "Heating zone" button. The displayed heating zone is now selected.

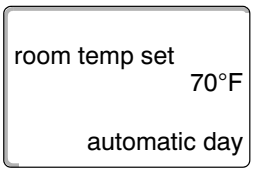


As soon as the heating zone has been selected, the display returns to the permanent display.



Press and hold down "Temp". First, the selected heating zone is displayed. After approx. 2 seconds, the display will show the currently-selected temperature and operating mode.

Adjust the temperature for the heating zone with the dial (here: "70°F" (21 °C)).



Release the button to save your input.

The day room temperature is now adjusted to 70 °F (21 °C). The selected permanent display will then appear again.

USER NOTE

If you want the adjust the temperature for an operating mode that is not the current mode, first select the corresponding operating mode (e.g. by pressing "Night mode"). After changing the temperature, reset the operating mode to the previous setting.

USER NOTE

For heating zones with individual remote controls (e.g. BFU), you can adjust the room temperature only via this remote control (→ instructions for the relevant remote control).

7.8 Heating zones with MEC2 remote control

During installation, your heating contractor will determine which heating zones are to be controlled by the MEC2 remote control. These heating zones are called "MEC heatingzones".

MEC heatingzones

The following adjustments made at the MEC2 apply to all "MEC heatingzones" simultaneously:

- Set the room temperature
- Set warm weather shut down (WWSD) temperature
- Select operating mode
- Set the vacation function
- Set the party or pause function

selection
not supported
MEC heatingzones
select

If you have selected an individual heating zone that is assigned to the MEC2, and you want to make one of the above adjustments, the fault message "selection not supported MEC heatingzones select" will appear.

Select "MEC heatingzones" to program these settings (→ Chapter 7.6).

Individual heating zones

The following adjustments can only be implemented for each individual heating zone separately:

- Select the standard program
- Change the standard program by moving set points
- Insert or delete set points
- Delete or connect heating phases
- Create a heating, DHW or recirculation pump program

timer
not supported
primary zone
select

If you have selected "MEC heatingzones" and you want to make one of the above adjustments, the fault message "timer not supported primary zone select" will appear.

Enter these settings for each heating zone separately (→ Chapter 7.6).

7.9 Selecting and modifying a heating program

7.9.1 What is a heating program?

A heating program automatically switches the operating mode (day and night mode) at fixed times. This automatic changeover is effected via a timer.

Before you use this option, consider the following:

– At what time in the morning should your home be warm? Does this time vary depending on the day of the week?

– Are there days when you do not need your home to be heated during the day?

– From what time in the evening does your home no longer need to be heated? This too may vary depending on the day of the week.

It may vary how long it takes your heating system to heat up individual rooms. This will be subject to the outdoor temperature, the building insulation and the drop in room temperature.

The "optimization" function of the user interface calculates the various heat-up times. Ask your heating contractor whether this function has been enabled. If so, all you need to do is enter the times at which your home should be warm.

With the user interface, Buderus offers eight different, preset heating programs as standard programs.

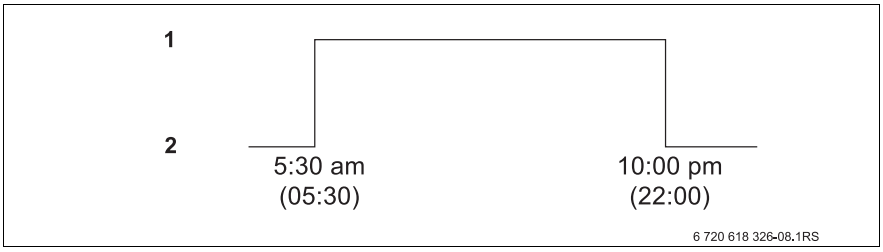


Fig. 12 Example for a standard program (here: "family program" from Monday to Thursday)

1 Day mode

2 Night mode

USER NOTE

After commissioning, check whether the selected heating program suits your lifestyle. If not, several options are available for matching the heating program to your individual requirements.

7.9.2 Timer program for DHW

You may enter your own heating program for DHW heating. This saves you energy.

Determine the time points so that DHW is only available when one heating zone is in standard heating mode (day mode). In this case, DHW is heated 30 minutes before day mode of the first heating zone, so it is available at the selected time.

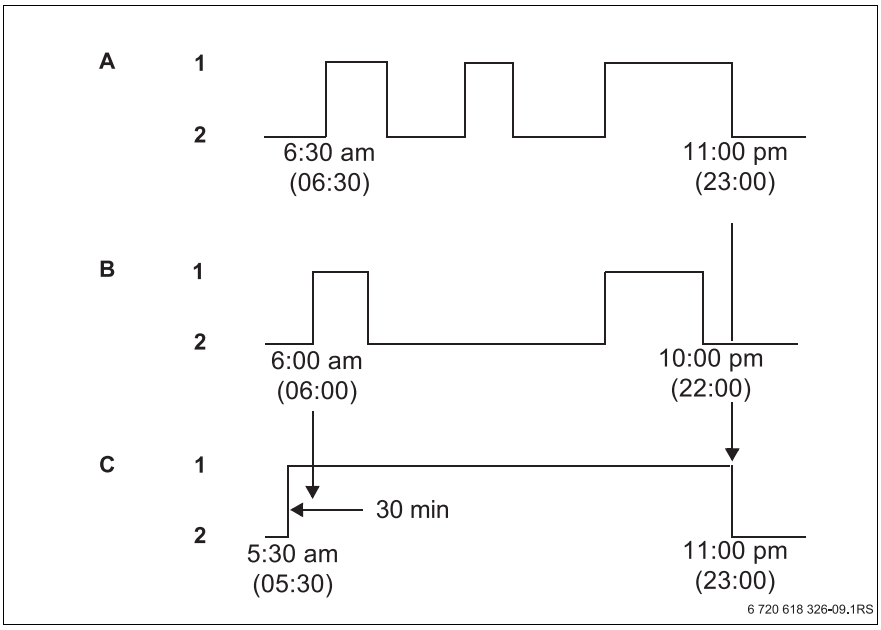


Fig. 13 DHW heating begins 30 minutes before day mode of the first heating zone, and ends with the beginning of night mode of the last heating zone.

A Heating zone 1

B Heating zone 2

C DHW

1 Day mode

2 Night mode

If you require additional hot water, you may, at short notice, heat DHW with the "ext DHW load" function (→ Chapter 6.5.2).

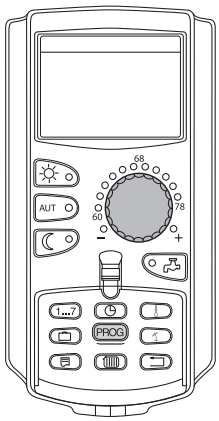
USER NOTE

DHW will not be subject to a temperature setback if you operate one heating zone in "day mode always" mode, and DHW is being heated by "heating zone".

USER NOTE

DHW will not be heated if you are operating **all** heating zones in "night mode alwys" mode and DHW is heated by "heating zone".

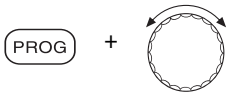
7.10 Selecting a standard program



The MEC2 remote control is equipped with eight different, preset heating programs that act as standard programs. See the following page for a summary of the preset times of the standard programs.

Please check which standard program best meets your requirements. First check the number of set points, and then the times. The "family" program is preset at the factory.

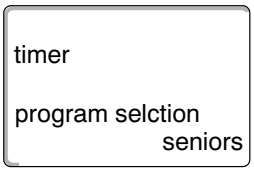
- Open flap.
- Select a heating zone (→ Chapter 7.6).

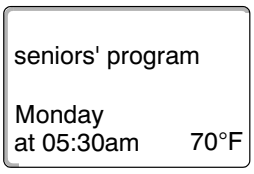


Press and hold down "PROG". Initially the heating zone is displayed for which you want to select a standard program. Approx. 2 seconds later the designation of the currently-selected standard program will appear.

Select the desired standard program with the dial (here: "seniors").

Release the "PROG" button. The displayed program is now selected.





The display shows the program designation and the first set point for the selected heating program (here: "seniors' program").

Press "Back" to return to the permanent display.

USER NOTE

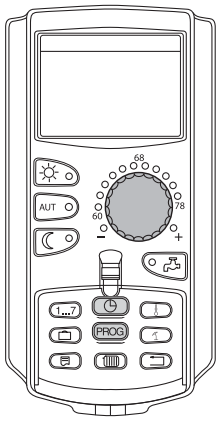
Switching programs are only effective in automatic mode (→ Chapter 6.3.1).

7.11 Summary of standard programs

Program name	Day of week	ON	OFF	ON	OFF	ON	OFF
"family" Factory setting	Mo – Th Fr Sat Sun	5:30 am (05:30) 5:30 am (05:30) 6:30 am (06:30) 7:00 am (07:00)	10:00 pm (22:00) 11:00 pm (23:00) 11:30 pm (23:30) 10:00 pm (22:00)				
"early morning" Early shift	Mo – Th Fr Sat Sun	4:30 am (04:30) 4:30 am (04:30) 6:30 am (06:30) 7:00 am (07:00)	10:00 pm (22:00) 11:00 pm (23:00) 11:30 pm (23:30) 10:00 pm (22:00)				
"evening" Late shift	Mo – Fr Sat Sun	6:30 am (06:30) 6:30 am (06:30) 7:00 am (07:00)	11:00 pm (23:00) 11:30 pm (23:30) 11:00 pm (23:00)				
"morning" Part-time work in the morning	Mo – Th Fr Sat Sun	5:30 am (05:30) 5:30 am (05:30) 6:30 am (06:30) 7:00 am (07:00)	8:30 am (08:30) 8:30 am (08:30) 11:30 pm (23:30) 10:00 pm (22:00)	12:00 am (12:00) 12:00 am (12:00)	10:00 pm (22:00) 11:00 pm (23:00)		
"afternoon" Part-time work in the afternoon	Mo – Th Fr Sat Sun	6:00 am (06:00) 6:00 am (06:00) 6:30 am (06:30) 7:00 am (07:00)	11:30 am (11:30) 11:30 am (11:30) 11:30 pm (23:30) 10:00 pm (22:00)	4:00 pm (16:00) 3:00 pm (15:00)	10:00 pm (22:00) 11:00 pm (23:00)		
"midday" Midday at home	Mo – Th Fr Sat Sun	6:00 am (06:00) 6:00 am (06:00) 6:00 am (06:00) 7:00 am (07:00)	8:00 am (08:00) 8:00 am (08:00) 11:00 pm (23:00) 10:00 pm (22:00)	11:30 am (11:30) 11:30 am (11:30)	1:00 pm (13:00) 11:00 pm (23:00)	5:00 pm (17:00)	10:00 pm (22:00)
"singles"	Mo – Th Fr Sat Sun	6:00 am (06:00) 6:00 am (06:00) 7:00 am (07:00) 8:00 am (08:00)	8:00 am (08:00) 8:00 am (08:00) 11:30 pm (23:30) 10:00 pm (22:00)	4:00 pm (16:00) 3:00 pm (15:00)	10:00 pm (22:00) 11:00 pm (23:00)		
"seniors"	Mo – Su	5:30 am (05:30)	10:00 pm (22:00)				
"new"	You can enter your own individual program here:						
"custom 1"	If none of the standard programs suit you, you may change them, have them changed by your heating contractor, or enter a new heating program (→ Chapter 8.2). This will be saved under "custom" and the number of the heating zone.						

Tab. 1 Standard programs ("ON" = day mode, "OFF" = night mode)

7.12 Modifying the standard program by moving set points



If the set points, i.e. the times of a standard program at which the system changes over between day and night mode, only partially suit you, you may change them, or ask your heating contractor to change them for you. The modified standard program is saved under "custom" and the number of the heating zone. The heating program memory is available for this.

The following example shows how the set points of the standard program "family" can be changed for the days Monday to Thursday.

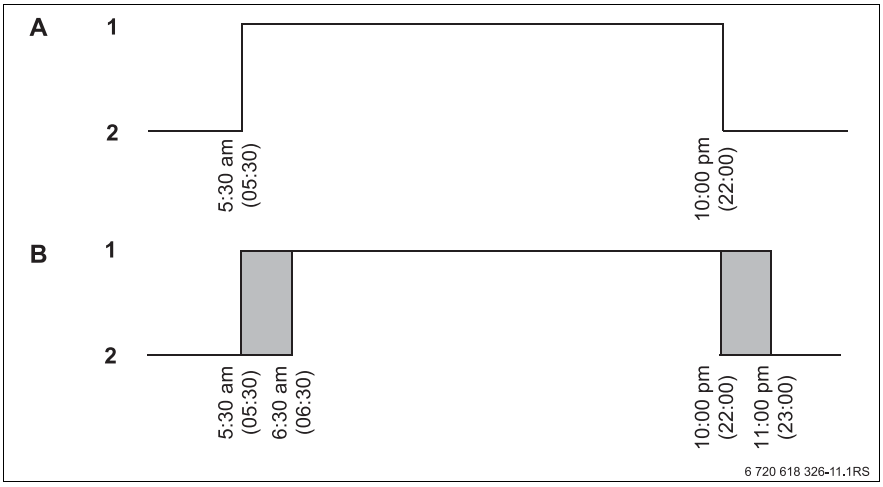


Fig. 14 Changing the set point from 05:30 to 06:30 am and from 10:00 (22:00 h) to 11:00 pm (23:00 h) (example)

A "family program"

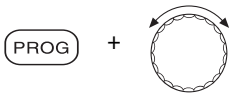
B New program "custom program 2"

1 Day mode

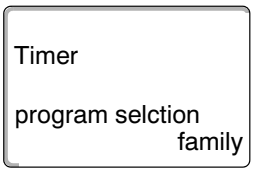
2 Night mode

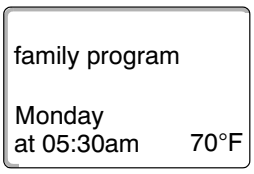
- Open flap.
- Select a heating zone (here: "heating zone 2", → Chapter 7.6).

Hold down "PROG" and select the desired standard program with the dial.

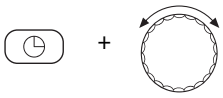


Release the "PROG" button.



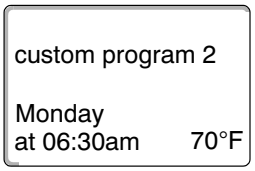


The first set point ("Monday at 05:30am" (05:30)) appears.



Hold down "Time" and select the desired time with the dial. Example: "06:30am" (06:30).

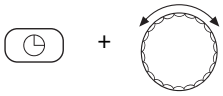
Release "Time". The newly-adjusted time for the "ON" set point is now saved.



The modified set point will be saved under the "custom" program and the number of the heating zone (here "2").

Continue to turn the dial until the next set point that you want to change is displayed.

The "OFF" set point for Monday appears. Now you can modify the time for the "OFF" set point.



Hold down "Time" and select the desired time with the dial. Example: "11:00pm" (23:00).

Release "Time". The newly-adjusted time for the "OFF" set point is saved.

Next set point

Continue to turn the dial until the next set point is displayed.

The next set point (Tuesday, 5:30 am (05:30 h)) appears.

Also change the following set points to 6:30 am (06:30 h) and 11:00 pm (23:00 h). The system will now heat from 6:30 am to 11:00 pm (06:30 h to 23:00 h) Monday to Thursday.

Press "Back" to return to the permanent display.

USER NOTE

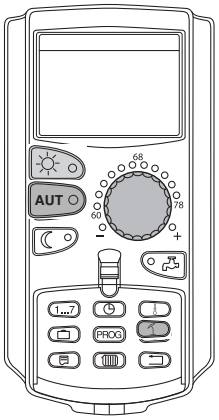
You can change the weekday if you press "Weekday" instead of "Time".

You can change the switching state ("ON"/"OFF") by pressing "Display" instead of "Weekday" or "Time". The operating mode determines the switching state: "ON" = day mode; "OFF" = night mode.

- Ensure that a stop point is associated with every start point.

The modified standard program is saved under "custom" and the number of the heating zone.

7.13 Set warm weather shut down (WWSD) temperature



In addition to the outdoor temperature, your Logamatic 4323 control panel considers the ability of the building to store heat and its thermal insulation (and from this creates the "Adjusted outdoor temperature", → Fig. 15), and after a delay, automatically changes over between summer and winter mode.

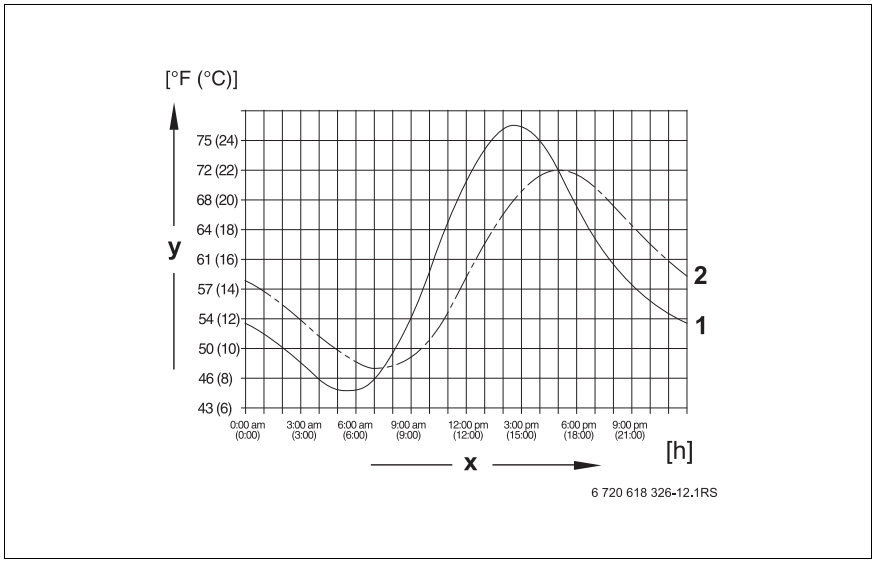


Fig. 15 Current and adjusted outdoor temperatures compared

1 Current outdoor temperature

2 Adjusted outdoor temperature

x Time

y Outdoor temperature

Summer mode

If the "Adjusted outdoor temperature" exceeds the factory-set switching threshold of 63 °F (17 °C), the heat is switched off with a delay that depends on the storage capacity and the insulation of the building. Summer mode is identified on the display with the icon.
DHW heating remains operational.

Press "Day mode" if you want to heat at short notice in summer mode.

The heating system returns to automatic summer mode if you press "AUT".

Winter mode

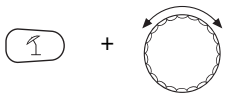
DHW and central heating are operational if the "Adjusted outdoor temperature" falls below the factory-set changeover threshold of 63 °F (17 °C).

Setting automatic warm weather shut down changeover

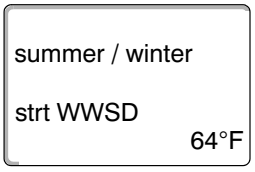
The desired heating zone must be selected before setting the summer/winter time changeover. One single heating zone or all heating zones allocated to the MEC2 can be selected.

- Select a heating zone (→ Chapter 7.6).
  Example: Heating zone 2

Setting the changeover temperature



Hold down "Su/Wi". The display briefly shows the heating zone. Then turn the dial to the desired changeover temperature, below which you want to heat (here: "64°F" (18°C)).

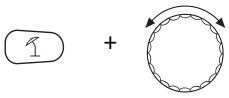


The display shows the set changeover temperature.

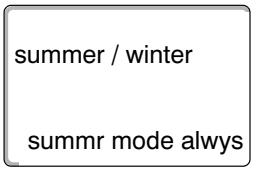
Release "Su/Wi" to save your input.

Setting continuous summer mode

- Select a heating zone (→ Chapter 7.6).
  Example: Heating zone 2



Hold down "Su/Wi". The display briefly shows the heating zone. Then turn the dial to a changeover temperature below 50 °F (10 °C).

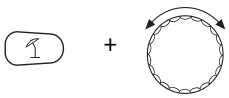


The display shows "summr mode alwys".

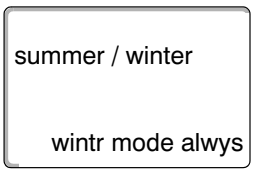
Release "Su/Wi" to save your input.
Your heating system will constantly operate in summer mode.

Setting continuous winter mode

- Select a heating zone (→ Chapter 7.6).
  Example: Heating zone 2



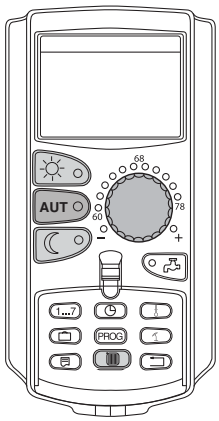
Hold down "Su/Wi". The display briefly shows the heating zone. Then turn the dial to a changeover temperature above 86 °F (30 °C).



The display shows "wintr mode alwys".

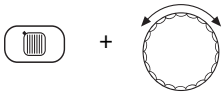
Release "Su/Wi" to save your input.Your heating system operates continuously in winter mode.

7.14 Setting the DHW operating mode

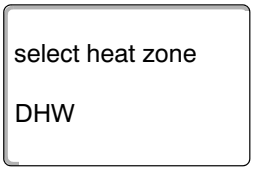


This allows you to change the DHW temperature in the DHW storage tank.

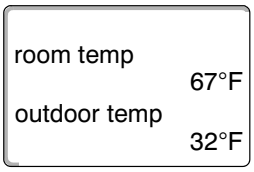
- Open flap.



Hold down "Heating zone" and select "DHW" with the dial.



Release the "Heating zone" button.



Then the permanent display will be shown again.

Select one of the following operating modes for DHW:

– "constant oper."
  The water inside the DHW storage tank is constantly maintained at the set temperature.

Press "Day mode" to select constant operation. After approx. three seconds, the permanent display will appear again.

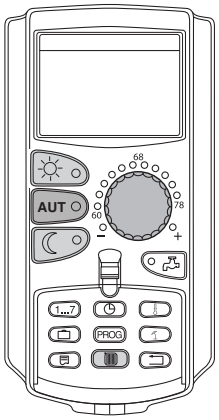
– "automatic"
  30 minutes before the first heating zone is switched on, the DHW storage tank will heat the water to the set temperature, and stop when the last heating zone is switched off (factory setting). Alternatively, you can enter your own individual DHW program (→ Chapter 8.3).

Press "Automatic" to select automatic mode. After approx. three seconds, the permanent display will appear again.

– "DHW OFF"
  DHW heating is switched off. By pressing "DHW", you will switch heating on for the duration of loading DHW once.

Press "Night mode" to stop DHW heating. After approx. three seconds, the permanent display will appear again.

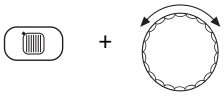
7.15 Setting the operating mode for DHW recirculation



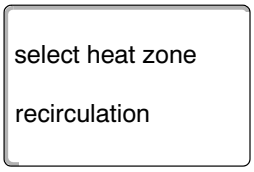
The DHW recirculation pump provides an almost instantaneous supply of DHW to the taps. For this, the DHW is circulated by a separate DHW recirculation pump twice per hour for three minutes. Your heating contractor can match this interval to requirements at the service level.

You can modify the operating mode of DHW recirculation as follows:

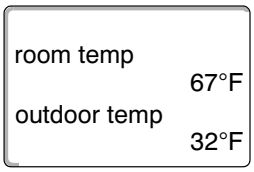
- Open flap.



Hold down "Heating zone" and select "recirculation" with the dial.



Release the "Heating zone" button.



Then the permanent display will be shown again.

Select one of the following operating modes for the DHW recirculation pump:

– "constant oper."
  The DHW recirculation pump will operate at the set interval, i.e. independently of the heating zones.

Press "Day mode" to select constant operation. After approx. three seconds, the permanent display will appear again.

– "automatic"
  30 minutes before the first heating zone is switched on, the DHW recirculation pump starts to run at the set interval, and stops when the last heating zone is switched off (factory setting). Alternatively, you can enter your own individual DHW recirculation pump program (→ Chapter 8.4).

Press "AUT" to select automatic mode. After approx. three seconds, the permanent display will appear again.

– "recirculat. OFF"
  The DHW recirculation pump will not be controlled. Pressing "DHW" switches the DHW recirculation pump on for the duration of loading DHW once.

Press "Night mode" to switch off DHW recirculation. After approx. three seconds, the permanent display will appear again.

7.16 Set the vacation function

Using the vacation function, you can heat at a lower room temperature if you are away for a prolonged period.

Example:

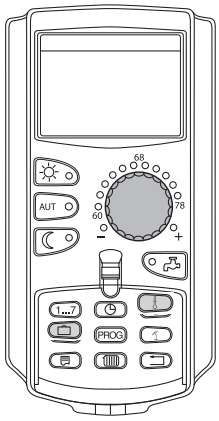
If you are on vacation for the next five days and you want to heat less during that time, operate heating zone 2 with a reduced room temperature of 54 °F (12 °C), for example.

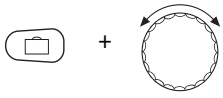
USER NOTE

Since the vacation function is enabled immediately after completing your entry, you should only enter this function on the day of your departure.

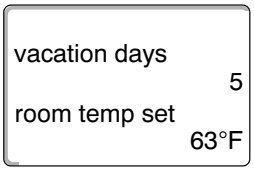
- Select a heating zone (→ Chapter 7.6).
  Example: Heating zone 2

Enter vacation function:





Hold "Vacation" down, and select the desired number (here: "5") of days with the dial.

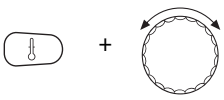


The display shows "5".

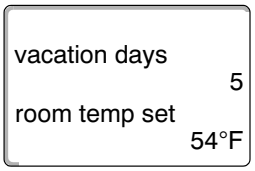
Release "Vacation" to save your input.

USER NOTE

The "room temp set" display only appears if the vacation setback type "room setback" or "setback" has been set by the heating contractor.



Hold "Temp" down, and select the desired temperature with the dial (here: "54°F" (12°C)).



The display shows "54°F" (12°C).

Release "Temp" to save your input.

The vacation function is enabled immediately after entry.

You can cancel the vacation function any time by calling it up, as described above, and setting the number of vacation days to "0".

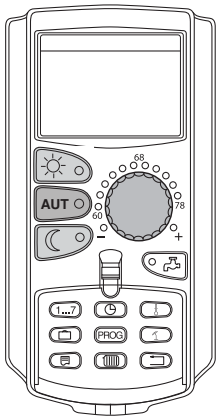
USER NOTE

If DHW is heated subject to the heating zones ("program selction heating zone", → Chapter 8.3), and all heating zones are set to vacation mode, DHW heating and DHW recirculation will be switched off automatically. You cannot enter a separate DHW vacation function.

USER NOTE

A separate DHW vacation function can be entered if DHW is heated according to a separate time program ("program selction custom DHW", → Chapter 8.3). The DHW recirculation pump is switched off automatically during the DHW vacation function.

7.17 Interrupting and continuing the vacation function

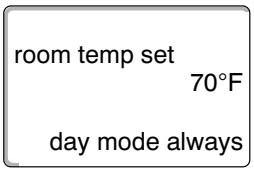


You may interrupt your vacation program at any time and provide heat according to the set day and night temperatures.

Only the "AUT" LED lights up if a heating zone is in vacation mode.

Interrupting the vacation function

Press "Day mode".



The display shows "day mode always".

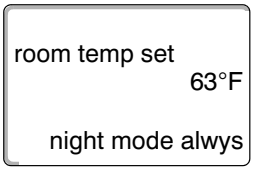
You may interrupt the vacation function at any time by pressing "Day mode". In this case the system heats according to the set room temperature (→ Chapter 6.4).

Continuing the vacation function

Press "AUT" to continue the interrupted vacation function.

Interrupting the vacation function

Press "Night mode".



The display shows "night mode alwys".

You may interrupt the vacation function at any time by pressing "Night mode". In this case the system heats according to the set night temperature (→ Chapter 6.4).

Continuing the vacation function

Press "AUT" to continue the interrupted vacation function.

7.18 Setting the party function

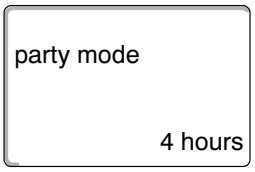
This function only applies to heating zones to which the MEC2 has been assigned as a remote control ("MEC heatingzones"). All heating zones without MEC2 continue to operate normally.

Enter the length of time the system should only heat to the preset room temperature.

Example:

You have a party and want to heat for the next four hours to the preset room temperature.

Hold down "Day mode" and **simultaneously open the flap of the MEC2**.
The party function is enabled. Hold down "Day mode" and turn the dial until the desired number of hours is displayed (here: "4").



The display shows the party function together with the set number of hours.

Release "Day mode".
The party function starts immediately. After the set time has expired, the heating system returns to automatic heating mode.

If you want to cancel the party function, call up party function as described above and turn the dial to "0".

7.19 Setting the pause function

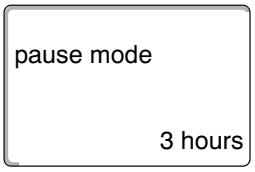
This function only applies to heating zones to which the MEC2 has been assigned as a remote control ("MEC heatingzones"). All heating zones without MEC2 continue to operate normally.

Enter the length of time the system should heat to the preset room temperature.

Example:

You are leaving the house for three hours and want to turn the heat down during your absence.

Hold down "Night mode" and **simultaneously open the flap of the MEC2**.
The pause function is enabled. Continue to hold down "Night mode" and select the desired number of hours (here: "3").



The display shows the pause function together with the set number of hours.

Release the "Night mode" button.
The pause function starts immediately. After the set time has expired, the heating system returns to automatic heating mode.

If you want to cancel the pause function, call up pause function as described above and turn the dial to "0".

7.20 Room temperature calibration

USER NOTE

This function is only available if the MEC2 is installed within the living space. If the room temperature shown on the display varies from the actual temperature measured with a thermometer, the display value can be adjusted using "CALIBRATING MEC".

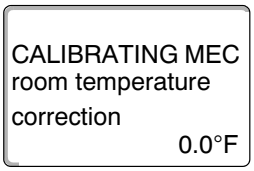
The factory setting is 0 °F (0 °C). The possible setting range is +9 °F to -9 °F (+5 °C to -5 °C).

Example:

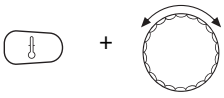
Displayed room temperature 72 °F (22 °C), actual room temperature 73.5 °F (22.5 °C).

- Open flap

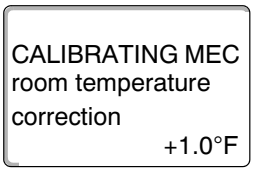
Simultaneously press and then release "Display" and "Temp".



The display shows "CALIBRATING MEC".



Hold down "Temp" and turn the dial to the desired value (here: "+1.0°F" (+0.5°C)).



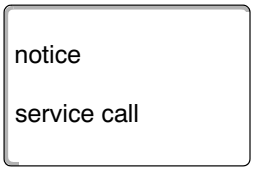
The display shows the set value.

Release "Temp" to save your input.

Press "Back" to return to the permanent display.

The display shows the corrected temperature 73.5 °F (22.5 °C).

7.21 Automatic maintenance message

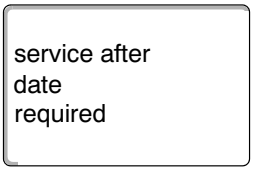


If your heating contractor has (with your agreement) enabled the "automatic service call" the maintenance message "notice service call" is displayed at a predetermined time (on a particular date or after so many hours of operation).

- Open flap.

Turn dial.

You will see either "service after date required" or "service after run time required".



- Inform the heating contractor to have the inspection and service done.

USER NOTE

The automatic service message remains pending until the heating contractor has reset the message.

8 Additional programming options

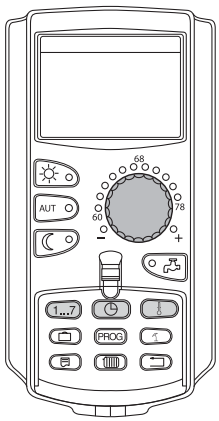
This chapter is intended to provide more detailed information to those of our customers who would like to familiarize themselves further with the functions of their heating system.

The following pages explain how to change a standard program, if none of the preset standard programs (→ Chapter 7.11) match your lifestyle.

You will learn how to create a new heating program that accurately matches your personal circumstances.

8.1 Modifying the standard program by inserting/deleting set points

8.1.1 Inserting set points



You can interrupt heating phases by inserting set points (details: Weekday/ time/temperature) into an existing heating program.

Example:

The standard "family" program provides constant heating on Fridays from 5:30 am until 11:00 pm (05:30 h until 23:00 h). Insert two new set points if, for example, you do not want to heat on Fridays from 10:00 am to 1:00 pm (10:00 h to 13:00 h).

Your modified program will be saved under the program name "custom" and the number of the heating zone.

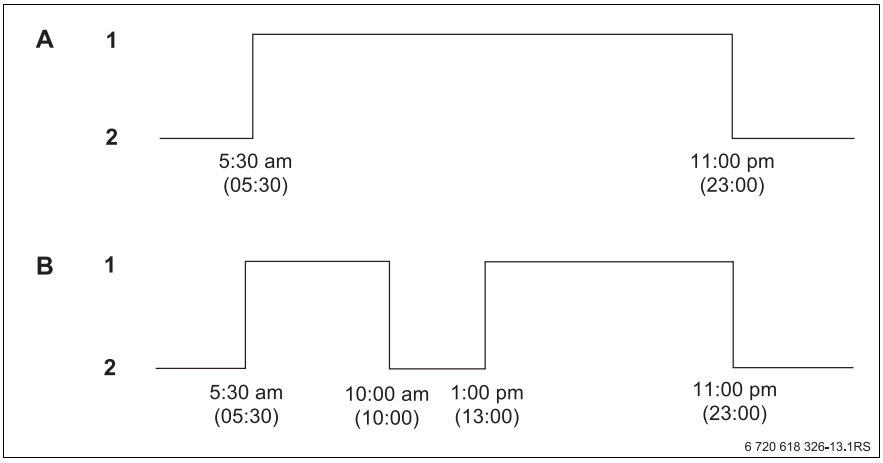


Fig. 16 Inserting set points to interrupt a heating phase

A "family program"

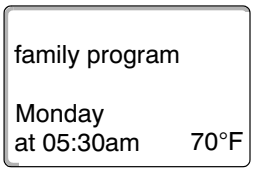
B New program "custom program 2"

1 Day mode

2 Night mode

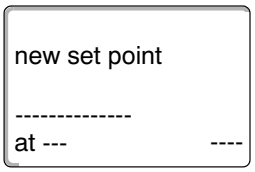
- Select a heating zone (→ Chapter 7.6).
  Example: Heating zone 2
- Select the standard program for the chosen heating zone (→ Chapter 7.10).
  (here: "program selction family")

Release "PROG" to enable the selected standard program (here: "family program").

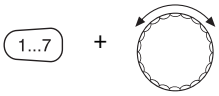


The display shows the selected standard program.

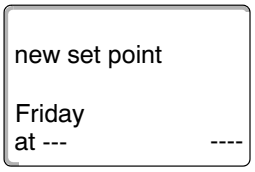
Turn the dial once counterclockwise, until "new set point" is displayed.



The display shows the blank mask "new set point" for the new set point.



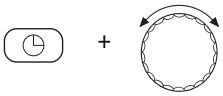
Hold down "Weekday" and turn the dial to the desired day (here: "Friday").



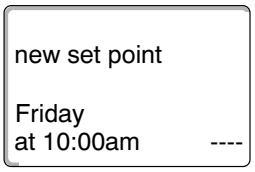
You can select days individually or in blocks:

- Monday – Thursday
- Monday – Friday
- Saturday – Sunday
- Monday – Sunday

Release "Weekday" to save your input.

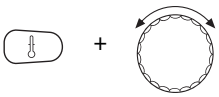


Hold "Time" down, and select the desired time with the dial (here: "10:00am" (10:00)).

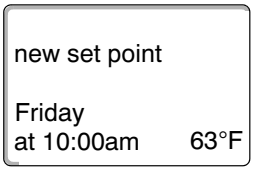


"Friday at 10:00am" is now set as the new set point.

Release "Time" to save your input.



Hold "Temp" down, and select the desired temperature with the dial (here: "63°F" (17°C)).



The display shows the set value.

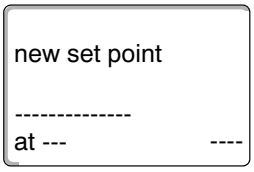
Release "Temp" to save your input.

USER NOTE

You cannot freely enter any temperature here. Only the factory-set day and night temperatures are available, which you can, however, modify yourself (→ Chapter 6.4).

USER NOTE

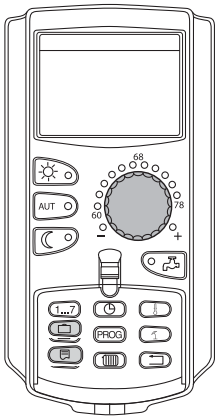
Only after all three details (day/time/temperature) have been defined for the new set point will it be automatically saved under "custom program" and the heating zone number (here: "2"). The saving process is not shown on the display. The display shows the blank mask "new set point" for the next set point.



To enter the next set point (e.g. Friday at 1:00pm (13:00), 70°F (21°C)), initially copy the procedure detailed above.

Press "Back" to return to the permanent display.

8.1.2 Deleting set points



Example:

In the "family program" for heating zone 2, the set point "Monday at 10:00pm" (22:00) is to be deleted.

Your modified program will be saved under the program name "custom" and the number of the heating zone.

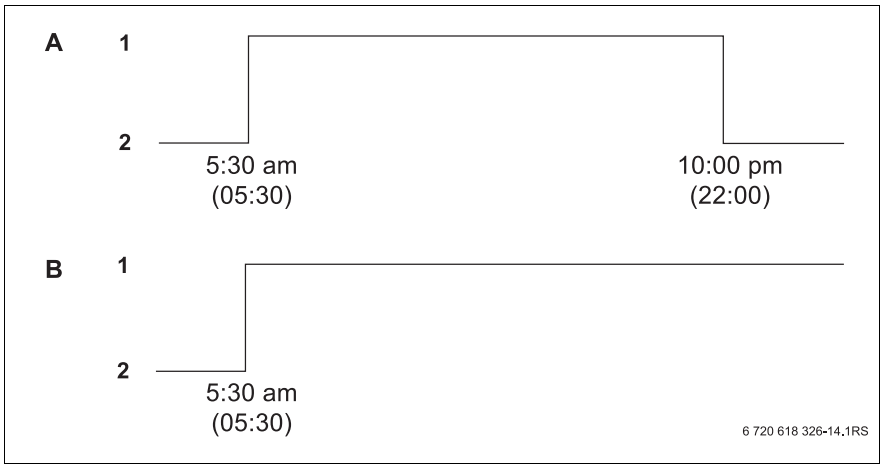


Fig. 17 Deleting a set point

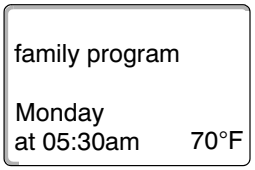
A "family program"

B New program "custom program 2"

1 Day mode

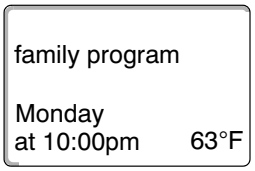
2 Night mode

- Select a heating zone (→ Chapter 7.6).
  Example: Heating zone 2
- Select the standard program for the chosen heating zone (→ Chapter 7.10).
  Example: Family program

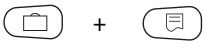


The first set point (start point): "Monday at 05:30am" at "70°F" (21°C) will be displayed.

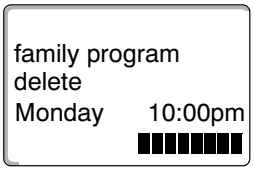
Turn the dial to the set point you want to delete (here: "10:00pm" (22:00)).



The set point to be deleted is displayed.



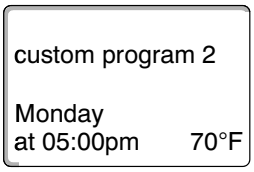
Simultaneously press and hold "Vacation" and "Display".



The bottom line shows eight blocks that are deleted in one-second intervals from left to right. When all blocks have disappeared, the set point is deleted.

If the buttons are released the delete process is canceled.

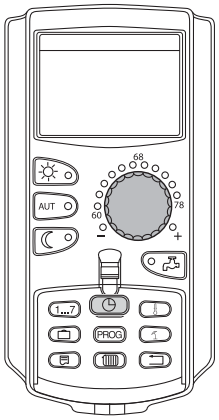
Simultaneously release "Vacation" and "Display" to save your input.



The display shows the next set point.
The new program that has been modified by the deletion is saved under "custom program" and the relevant heating zone number (here: "2").

You can call up your new program by pressing "PROG" and turning the dial (→ Chapter 7.10).

Press "Back" to return to the permanent display.



8.1.3 Deleting a heating phase

A heating phase consists of two set points – a start and a stop point. If you wish to delete a heating phase, both set points must be deleted.

Example:

In the "daytime program" for heating zone 2, you want to delete the Monday heating phase from 11:30 am to 1:00 pm (11:30 to 13:00 h) to create one continuous phase in night mode from 8:00 am to 5:00 pm (08:00 to 17:00 h).

Your modified program will be saved under the program name "custom" and the number of the heating zone.

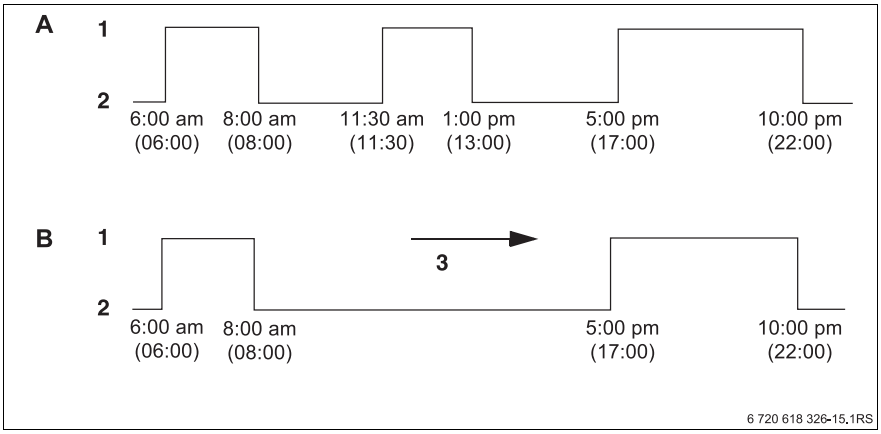


Fig. 18 Deleting a heating phase

A "daytime program"

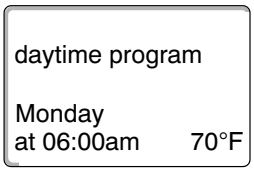
B New program "custom program 2"

1 Day mode

2 Night mode

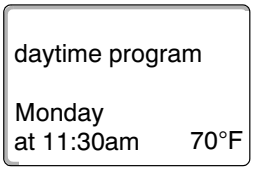
3 Delete

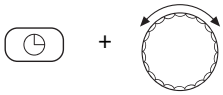
- Select a heating zone (→ Chapter 7.6).
  Example: Heating zone 2
- Select the standard program for the chosen heating zone (→ Chapter 7.10).
  Example: "daytime program"



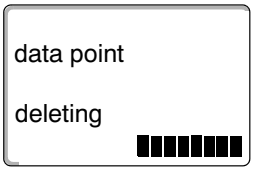
The first set point (start point): "Monday at 06:00am" at "70°F" (21°C) will be displayed. The displayed temperature depends on the set room temperature.

Turn the dial to the start point of the heating phase you want to delete (here: "11:30am" (11:30)).





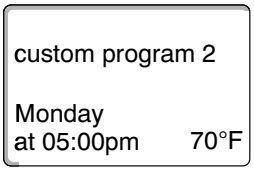
Hold down "Time" and turn the dial to the stop point of the heating phase you want to delete (here: "01:00pm" (13:00)).



If you have selected the stop set point of the heating phase you want to delete, the bottom line will show eight blocks that are deleted in one-second intervals from left to right. The heating phase has been deleted when no blocks are left.

The deleting process will be terminated if you release the "Time" button prematurely or turn the dial back. In this case all set points for the heating phase remain active.

Release "Time" to save your input.

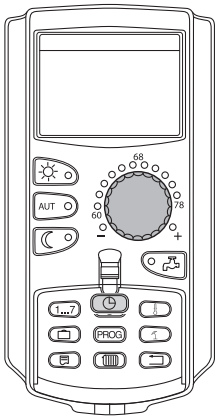


The display shows the next set point.
The new program that has been modified by the deletion is saved under "custom program" and the relevant heating zone number (here: "2").

You can call up your new program by pressing "PROG" and turning the dial (→ Chapter 7.10).

Press "Back" to return to the permanent display.

8.1.4 Linking heating phases



A heating phase consists of two set points – a start and a stop point. To connect two consecutive heating phases, place the stop point of the first heating phase onto the start point of the next phase.

Example:

Starting from the "daytime program" for heating zone 2, you want to join the Monday heating phase from 11:30 am to 1:00 pm (11:30 to 13:00 h) to the heating phase 5:00 pm to 11:00 pm (17:00 to 22:00 h). In other words you want to heat continually from 11:30 am until 10:00 pm (11:30 until 22:00 h).

Your modified program will be saved under the program name "custom" and the number of the heating zone.

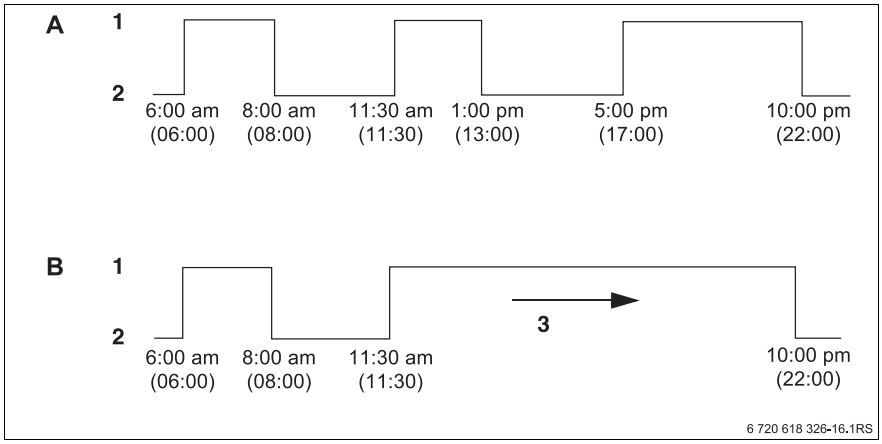


Fig. 19 Connecting two heating phases

A "daytime program"

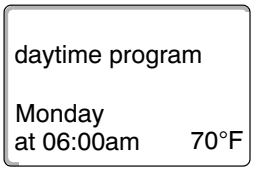
B New program "custom program 2"

1 Day mode

2 Night mode

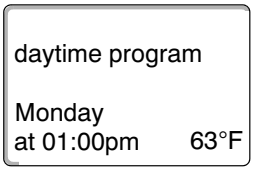
3 Turn from 1:00 pm (13:00) to 5:00 pm (17:00)

- Select a heating zone (→ Chapter 7.6).
  Example: Heating zone 2
- Select the standard program for the chosen heating zone (→ Chapter 7.10).
  (here: "daytime program")

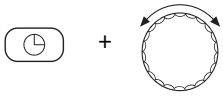


The first set point (start point): "Monday at 06:00am" at "70°F" (21°C) will be displayed.

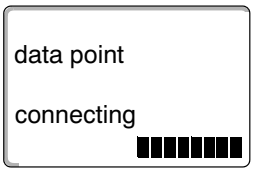
Turn the dial to the stop point of the first heating phase you want to connect with another (here: "01:00pm" (13:00)).



The display shows the stop point to be connected.



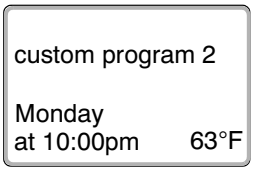
Hold down "Time" and turn the dial clockwise, until the start point of the second heating phase, i.e. the next consecutive heating phase, is displayed, which you wish to combine with the first heating phase (here: "05:00pm" (17:00)).



If you have selected the start point of the next consecutive heating phase, the bottom line will show eight blocks, which are deleted in one-second intervals from left to right. When no blocks are left both heating phases have been combined.

The deleting process will be terminated if you release the "Time" button prematurely or turn the dial back. In this case all set points for the heating phase remain active.

Release "Time" to save your input.

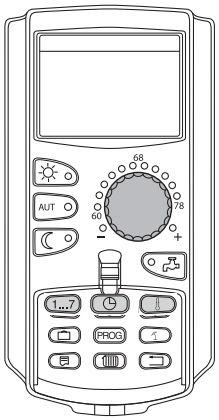


The new program that has been modified by the connection process is saved under "custom program" and the heating zone number (here: "2").

You can call up your new program by pressing "PROG" and turning the dial (→ Chapter 7.10).

Press "Back" to return to the permanent display.

8.2 Creating a new heating program



You may enter up to 42 set points per week and heating zone to create a new heating program. A single set point comprises three details: Weekday, time and temperature.

The newly-created program will be saved under "custom program" and the relevant heating zone number.

Example:

Monday – Friday,
from 5:00 am (05:00) 70 °F (21 °C), to 9:00 pm (21:00) 63 °F (17 °C)

Saturday – Sunday,
from 9:30 am (09:30) 70 °F (21 °C), to 11:30 pm (23:30) 63 °F (17 °C)

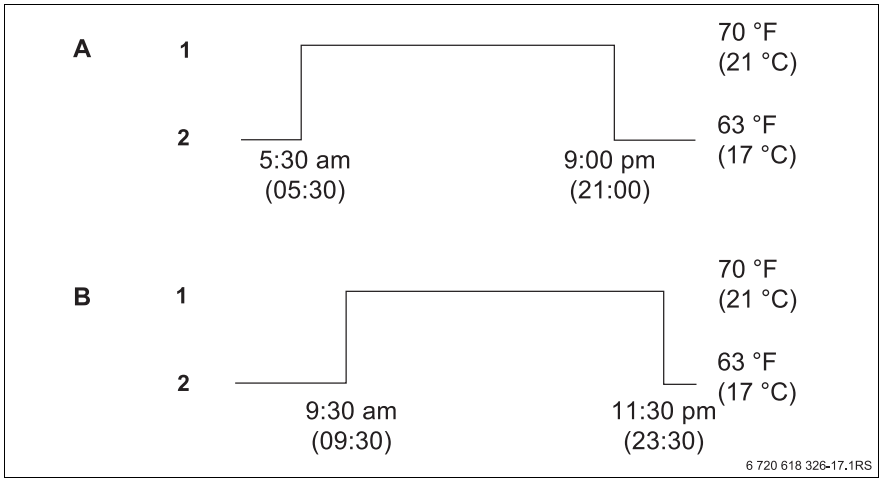


Fig. 20 New heating program

A New heating program "custom program 2"
Monday – Friday

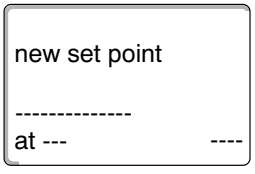
B Saturday – Sunday

1 Day mode

2 Night mode

- Select a heating zone (→ Chapter 7.6).
  Example: Heating zone 2
- Select the standard program "program selction new" for this heating zone (→ Chapter 7.10).

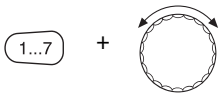
The display shows the blank mask "new set point".



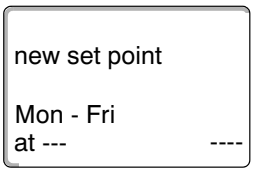
Enter the first set point (Monday – Friday, 5:00 am (05:00), 70 °F (21 °C))

You can select days individually or in blocks:

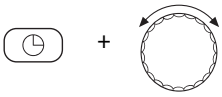
- Monday – Thursday
- Monday – Friday
- Saturday – Sunday
- Monday – Sunday



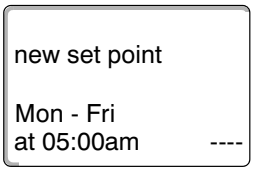
Hold down "Weekday" and select the desired day or block with the dial (here: "Mon - Fri").



Release "Weekday" to save your input.

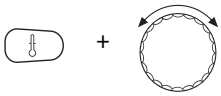


Hold "Time" down, and select the desired time with the dial (here: "05:00am" (05:00)).

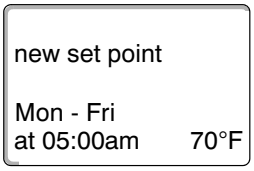


The display shows the new set point.

Release "Time" to save your input.

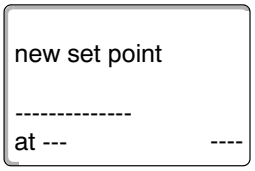


Hold "Temp" down, and select the desired temperature with the dial (here: "70°F" (21°C)).



You cannot freely enter any temperature here. Only the factory-set day and night temperatures are available, which you can, however, modify yourself (→ Chapter 6.4).

Release "Temp" to save your input.



Only after all three details (day/time/temperature) have been set for the new set point will it be automatically saved under "custom program" and the heating zone number (here: "2"). The saving process is not shown on the display. The display shows the blank mask "new set point" for the next set point.

- Enter the second set point (Monday – Friday, 9:00 pm (21:00 h), 63 °F (17 °C)).
- Enter the third set point (Saturday – Sunday, 9:30 am (09:30), 70 °F (21 °C)).
- Enter the fourth set point (Saturday – Sunday, 11:30 pm (23:30 h), 63 °F (17 °C)).

To enter the second to fourth set points, you only need to repeat the previous steps.

Only after all set points have been correctly entered, press "Back" to return to the permanent display.

Your heating program will now operate according to your "custom program". You can call up your new "custom program" by pressing "PROG" and turning the dial.

8.3 Creating a new DHW program

You can operate DHW heating either according to the factory settings "program selction heating zone" or according to your own new switching program "program selction custom DHW".

USER NOTE

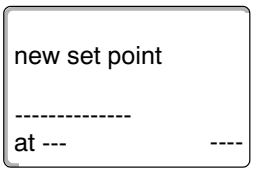
With the factory setting "program selction heating zone", DHW is heated 30 minutes prior to the first set point of all heating zones associated with this control panel, and ends when the last heating zone is switched off.

If DHW is to be heated independently of the heating zones, you can enter your own new DHW program as follows:

Example:

On all weekdays DHW should be heated from 6:30 am until 9:00 am (06:30 to 09:00 h).

- Select a heating zone (→ Chapter 7.6).
  (here: "DHW")
- Select a program for the heating zone "DHW" (→ Chapter 7.10).
  (here: "program selction new")



The display shows the blank mask "new set point" for the new set point.

- Enter the set points (→ Chapter 8.2).

USER NOTE

Only after all three details (day/time/temperature) have been defined for the new set point will it be automatically saved under "custom program DHW", and the heating zone selection "DHW". The saving process is not shown on the display. The display shows the blank mask "new set point" for the next set point. Repeat this process for all desired set points.

DHW heating will now operate according to your "custom program DHW". You can call up your new "custom program DHW" by pressing "PROG" and turning the dial (→ Chapter 7.6).

8.4 Creating a new DHW recirculation pump program

You may operate the DHW recirculation pump either according to the factory settings "program selction heating zone" or according to your own new switching program "program selction custom CR" (CR: recirculation pump).

USER NOTE

With the factory setting "program selction heating zone", the DHW recirculation pump starts automatically 30 minutes prior to the first set point of all heating zones associated with this control panel, and ends when the last heating zone is switched off.

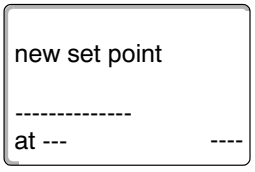
If your recirculation pump should work independently of the heating zones, you can enter your own new DHW recirculation pump program as follows:

Example:

The DHW recirculation pump is to run on all weekdays from 6:30 am to 9:00 am (06:30 to 09:00 h).

- Select a heating zone (→ Chapter 7.6).
  (here: "recirculation")
- Select a program for the heating zone "recirculation" (→ Chapter 7.10).
  (here: "program selction new")

The display shows the blank mask "new set point" for the new set point.



- Enter the set points (→ Chapter 8.2).

USER NOTE

Only after all three details (day/time/temperature) have been defined for the new set point will it be automatically saved under "custom program CR" and the heating zone number "recirculation". The saving process is not shown on the display. The display shows the blank mask "new set point" for the next set point. Repeat this process for all desired set points.

Your DHW recirculation pump will now operate according to your "custom program CR". You can call up your new "custom program CR" by pressing "PROG" and turning the dial.

9 Modules and their functions

All modules are shown here that are or can be installed in your Logamatic 4323 control panel.

		Control panel Logamatic 4323
Modules	MEC2 remote control	O
	CM431 controller module	O
	ZM433 central module Supply for external heat production + heating zone	O
	FM441 function module Heating zone + DHW	X
	FM442 function module 2 heating zones	X
	FM443 function module Solar circuit	X
	FM445 function module LAP/LSP (primary system)	X
	FM448 function module Central fault message	X
	FM456 function module Cascade – 2 wall mounted boilers	X[1)]
	FM457 function module Cascade – 4 wall mounted boilers	X[1)]
	FM458 function module Strategy module	X[1)]

Tab. 2 Standard equipment level and optional modules

[1)] May only be connected to control panel 1 (address 0 or 1).

O = basic equipment

X = optional extra

Along with the ZM433 central module, which is part of the standard equipment level of the Logamatic 4323 control panel, most function modules used, i.e. FM441 and FM442 function modules, will be described on the following pages.

The MEC2 preset menus in these operating instructions relate to these modules.

All other modules are explained in separate technical module documentation.

9.1 ZM433 central module (standard equipment level)

The ZM433 module controls one supply pump to transfer heat, in case of demand, from external heat sources to the system. This module also controls one heating zone with mixer.

The manual switches on the module are only provided for service and maintenance functions.

If the manual switches are not set to automatic, a corresponding message appears on the MEC2 remote control, and the fault indicator lights up.

USER NOTE

Do not use the manual switches to shut off the installation for temporary absence.

Use the vacation function for this purpose (→ Chapter 7.16).

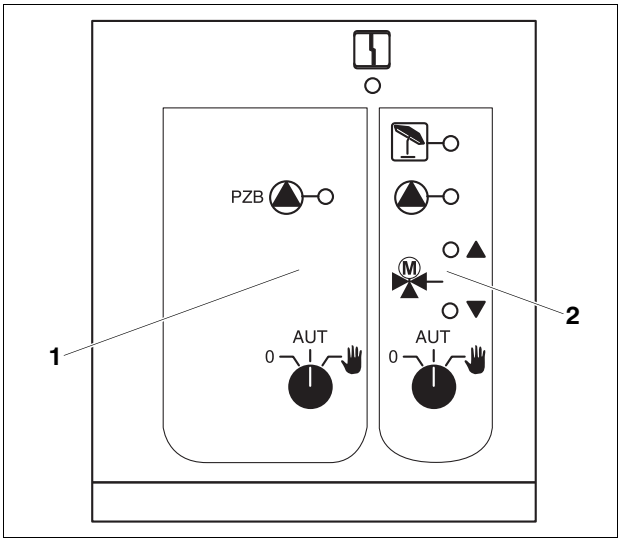


Fig. 21 ZM433 central module

1 Controlling a supply pump

2 Heating zone with mixer

Display		General fault, e.g. on-site faults, sensor faults, external faults, wiring faults, internal module faults, manual mode. The fault messages appear as plain text on the MEC2 remote control.

LEDs for the functions

Display	▲	"Mixing valve opening" (hotter)
Display	▼	"Mixing valve closing" (colder)
Display		Heating zone in summer mode
Display		Supply or heating pump operational

Supply function

Manual switch – supply pump

(→ Fig. 22, [1])

USER NOTE

The manual switch should normally be set to "AUT".

Positions **0** and ✋ (manual mode) are special settings reserved for contractors only.

✋:	The supply pump is switched on.
AUT:	The supply pump operates automatically.
0:	The supply pump is switched off. The control functions continue to operate.

Heating zone function

Manual heating zone switch for heating zone 0

(→ Fig. 22, [2])

USER NOTE

The manual switch should normally be set to "AUT".

Positions **0** and ✋ (manual mode) are special settings reserved for contractors only.

✋:	The heating pump is switched on. The mixing valve is switched to zero volt and can be manually operated.
AUT:	The heating zone is operating in automatic mode.
0:	The heating pump is switched off. The mixing valve is switched to zero volt. The control functions continue to operate.

Current functions are indicated by LEDs.

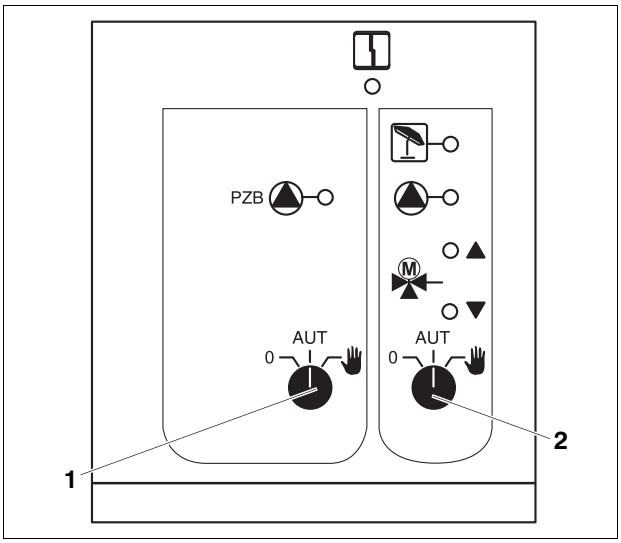


Fig. 22 ZM433 central module

1 Manual supply pump switch

2 Manual heating zone switch

9.2 FM441 function module (accessory)

The FM441 module controls one heating zone and one DHW heating consumer (tank).

The manual switches on the module are only provided for service and maintenance functions.

If the manual switches are not set to automatic, a corresponding message appears on the MEC2 user interface and the fault indicator lights up.

USER NOTE

Do not use the manual switches to shut off the installation for temporary absence.

Use the vacation function for this purpose (→ Chapter 7.16).

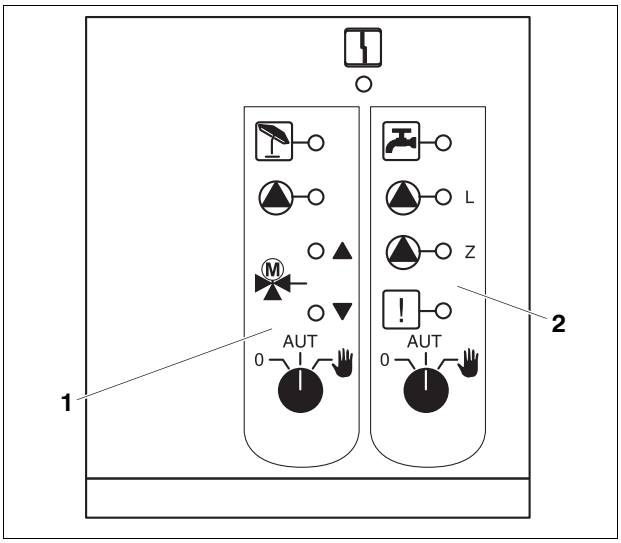


Fig. 23 FM441 function module

1 Heating zone

2 DHW

Display		General fault, e.g. on-site faults, sensor faults, external faults, wiring faults, internal module faults, manual mode. The fault messages appear as plain text on the MEC2 remote control.

LEDs for the functions

Display	▲	"Mixing valve opening" (hotter)
Display	▼	"Mixing valve closing" (colder)
Display		Heating zone in summer mode
Display		DHW in night mode below the set temperature
Display		Heating pump in operation
Display	- L	Tank primary pump in operation
Display	- Z	Recirculation pump in operation
Display	!	Thermal disinfection active

Heating zone and DHW function

Heating zone manual switch (→ Fig. 24, [1]) and DHW (→ Fig. 24, [2]):

for heating zone:

for DHW supply:

USER NOTE

The manual switch should normally be set to "AUT".

Positions **0** and ✋ (manual) are special settings reserved for contractors only.

✋: The heating pump or tank primary pump is switched on.
The mixing valve is switched to zero volt and can be manually operated.
The DHW recirculation pump is switched off.

AUT: The heating zone or DHW circuit operates in automatic mode.

0: The heating pump or tank primary pump as well as the DHW recirculation pump are switched off.
The mixing valve is switched to zero volt.
The control functions continue to operate.

Current functions are indicated by LEDs.

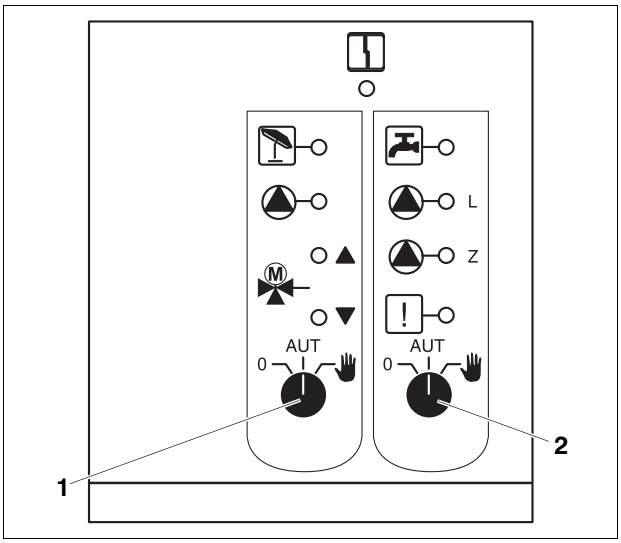


Fig. 24 FM441 function module

1 Manual heating zone switch

2 DHW manual switch

9.3 FM442 function module (accessory)

The FM442 module controls two independent heating zones with mixing valve.

Several FM442 modules can be used in your control panel.

The manual switches on the module are only provided for service and maintenance functions.

If the manual switches are not set to automatic, a corresponding message appears on the MEC2 user interface, and the fault indicator lights up.

USER NOTE

Do not use the manual switches to shut off the installation for temporary absence.

Use the vacation function for this purpose (→ Chapter 7.16).

Heating zone function

The manual heating zone switch

for e.g. heating zone 1 or 2

USER NOTE

The manual switch should normally be set to "AUT".

Positions **0** and ✋ (manual mode) are special settings reserved for contractors only.

✋:	The heating pump is switched on. The mixing valve is switched to zero volt and can be manually operated.
AUT:	The heating zone is operating in automatic mode.
0:	The heating pump is switched off. The mixing valve is switched to zero volt. The control functions continue to operate.

Current functions are indicated by LEDs.

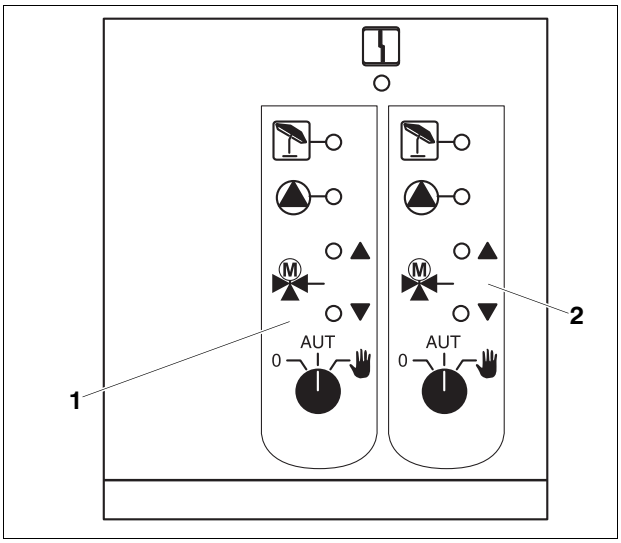


Fig. 25 FM442 function module

1 Heating zone x

2 Heating zone y

Display	ϟ	General fault, e.g. on-site faults, sensor faults, external faults, wiring faults, internal module faults, manual mode. The fault messages appear as plain text on the MEC2 remote control.

LEDs for the functions

Display	▲	"Mixing valve opening" (hotter)
Display	▼	"Mixing valve closing" (colder)
Display	☼	Heating zone in summer mode
Display	◭	Heating pump in operation

10 Correcting faults and troubleshooting

Have the faults remedied by your heating contractor immediately.

All system faults are displayed on the MEC2 remote control.

Report the fault by telephone to your heating contractor. Where necessary, set the module switches according to the instructions in Chapter 11.

Provided your control panel is equipped with the modules mentioned in Chapter 9, the following faults may be reported:

- heating zone x supply sensor
- DHW DHW sensor
- DHW cold
- DHW disinfection
- DHW DHW warning
- heating zone x remote control
- heating zone x communication
- heating zone x circulator fault pump
- heating zone x in manual mode
- bus system ECOCAN-BUS has no reception
- bus system no master
- bus system address conflict
- address conflict slot y
- address incorrect module slot y
- address unknown module slot y
- DHW inert anode
- DHW external fault
- DHW in manual mode
- sub station heat insufficient
- sub station supply sensor
- sub station outdoor sensor

10.1 Simple troubleshooting

If no fault messages are displayed on the control panel in spite of cool rooms or cool DHW, there may be an incorrect setting.

Observation	Possible cause(s)	Action
Control panel remains dark or does not function	ON/OFF switch set to "OFF". No power supply.	ON/OFF switch set to "ON". Check mains circuit breaker. Heating system emergency shut-off switch set to "ON".
MEC2 display dark	MEC2 incorrectly plugged in (contact problems).	Install MEC2 correctly.
Room cool	Actual room temperature for the respective heating zone is incorrectly displayed.	Check the heating zone assignment.
	Control panel operates in setback mode.	Check time and heating program, and modify if desired.
	Set room temperature too low.	Correct set room temperature.
	DHW supply runs for too long.	Check DHW heating.
	Heat sources deliver insufficient heating energy or are shut down.	Check heat sources.
	Room temperature sensor is incorrectly adjusted.	Sensor adjustment.
DHW cool	DHW is set to the wrong temperature.	Correct the DHW temperature setting.
	Switching program is incorrectly set up.	Re-program the switching program.
DHW cool (if DHW is heated by external heat source)	External heat sources supply insufficient heating energy.	Check heat sources.
LED of the AUT/DAY/NIGHT buttons on the MEC2 does not light up, the display functions	MEC2 is installed on a slave boiler, in this case the LED and buttons for AUT/DAY/NIGHT are disabled.	

10.2 Troubleshooting

MEC2 message	Effect	Remedy
DHW cold	DHW is too cold.	Set DHW switch on module ZM433, FM441 or FM445 to manual. Notify heating contractor.
remote control fault	The control panel works with the last values set on the MEC2 remote control.	Notify heating contractor.
outdoor sensor fault	The heater heats at higher temperatures if necessary and thus ensures a comfortable temperature.	Notify heating contractor. Inform the heating contractor which temperature sensor is defective.
supply sensor fault	It may get too hot.	If necessary, manually adjust the mixer. Notify heating contractor.
heating zone x communication fault	No communication between the BFU of heating zone x and the control panel.	Remote control may be faulty. Notify heating contractor.
DHW sensor fault	If the DHW sensor is faulty, water will not be heated for safety reasons.	Notify heating contractor.
heating zone x manual mode	Depending on switch positions, pumps, actuators, etc. will be operated manually.	The switch was set to manual (for maintenance or troubleshooting). Return the manual switch to "AUT" after the fault has been remedied.
sub station supply sensor fault	Possible over or under supply.	Notify heating contractor.
sub station heat insufficient fault	Heating zone x has insufficient supply. A DHW circuit is not being heated.	The external heat source must supply more or sufficient heat.

11 Operation in the event of a fault

WARNING!

RISK OF LIFE

due to electric shock!

- Never open the control panel.
- In an emergency, switch off the control panel (e.g. with the heating system emergency shut-off switch) or isolate the heating system from the power supply by disengaging the heating system circuit breaker.
- Arrange for your heating contractor to rectify any heating system faults immediately.

CAUTION!

SYSTEM DAMAGE

through the system overheating!

If the temperature is set incorrectly, a radiant floor heating system could overheat.

- If an radiant floor heating system is installed: Before operating your heating system manually, check the temperature settings of the temperature limiter on the boiler.

Manual switches are provided for manual mode on the control panel and the modules.

The assigned pump is started in position ✋. The mixing valve remains disconnected and can be adjusted by hand.

11.1 Emergency operation

If the electronics fail, the control panel can operate in emergency mode. In emergency mode, all pumps continue to run and the mixing valves are volt-free. They can be set manually. In such cases, notify your heating contractor.

11.2 Heating mode with manual switch

In most cases, faults are displayed on the MEC2 if they concern the control panel.

Please notify your local heating contractor of the fault displayed on the MEC. The heating contractor can provide fast and specific assistance to correct the fault on the basis of your information.

If you cannot immediately contact your local heating contractor, you may choose to select manual mode using the manual switch.

Manual mode Logamatic 4323 (ZM433 central module)

Before making any adjustments for manual mode, check the settings on the various modules for possible incorrect settings. If the control system indicates a fault you may temporarily run your heating system manually.

- Switch on the control panel via the ON/OFF switch.
- Set supply circuit (→ Fig. 26, [1]) via selector

to manual ✋.

USER NOTE

To prevent insufficient supply, check that the external heat source can deliver sufficient heating energy before operating the supply pump manually.

- Set heating zone (→ Fig. 26, [2]) at selector

to manual ✋.

USER NOTE

For the operating safety of the installation mixer circuits must not be completely closed.

In case of faults, immediately notify your local heating contractor, who will provide professional service. Inform your contractor of the fault message displayed on the MEC2.

Manually disconnect the heating zone mixer and position towards hotter or colder, until the desired room temperature is achieved.

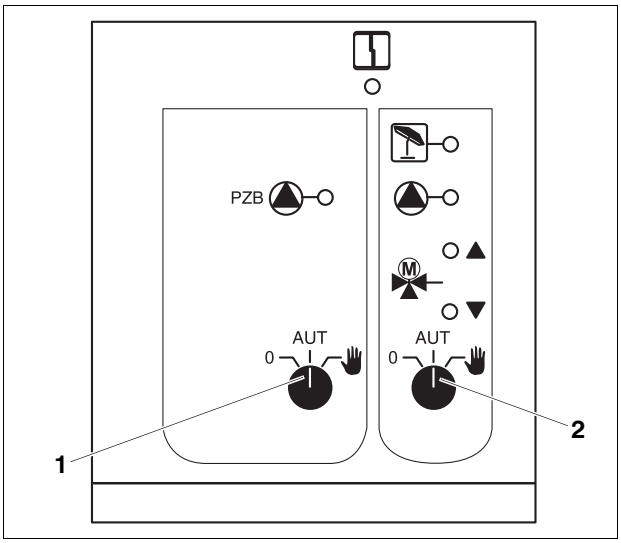


Fig. 26 ZM433 central module

1 Manual supply circuit switch

2 Manual switch – heating zone 0

Manual mode FM441 and FM442 function modules (accessories)

As described on page 75 for the central module, you may also set the manual switches for DHW and/or heating zones of these modules temporarily to ✋ manual, should there be a fault.

For DHW please note: Before manually operating the primary pump on systems with external heat sources, ensure that the heat source can deliver sufficient heat, otherwise the DHW storage tank may cool down.

WARNING!

RISK OF SCALDING

from hot water.

Hot water temperatures above 122 °F (50 °C) can cause scalding almost immediately.

- Do not draw off DHW unmixed.
- Ensure that a thermostatic tempering valve is installed as protection against scalding.

12 Setup log

Operating values	Input range	Factory setting	Selection
Program selection	family early morning evening morning afternoon midday singles seniors new	family	
DHW	86 °F – 140 °F (30 °C – 60 °C)	140 °F (60 °C)	
Set warm weather shut down (WWSD) temperature	50 °F – 86 °F (10 °C – 30 °C) constant summer constant winter	63 °F (17 °C)	
Day room temperature	52 °F – 86 °F (11 °C – 30 °C)	70 °F (21 °C)	
Night room temperature	36 °F – 84 °F (2 °C – 29 °C)	63 °F (17 °C)	
Vacation room temperature	50 °F – 86 °F (10 °C – 30 °C)	63 °F (17 °C)	
Disinfection	yes/no	no	

Heating zone assignment

Your heating contractor will, as part of the commissioning process, assign the individual heating zones of your heating system, e.g. heating zone 1 = "l.h. side of the first floor".

Heating zone	Assignment
heating zone 0	
heating zone 1	
heating zone 2	
heating zone 3	
heating zone 4	
heating zone 5	
heating zone 6	
heating zone 7	
heating zone 8	

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